TABLE OF CONTENTSs

Tables

Figures

Appendices

1 INTRODUCTION

1.1 Background

1.1.1 The 2013 Policy Address first stated the need to take forward further development of the New Territories North (NTN) with a view to developing a modern new town there on a similar scale of the Fanling or Sheung Shui New Towns. In 2014, the Government commissioned the Preliminary Feasibility Study on Developing NTN (referred hereafter as "the Preliminary Study") and an area in San Tin / Lok Ma Chau (STLMC) was identified as having potential for further development. In October 2016, a Broad Land Use Concept Plan (BLCP) of the area was promulgated in the public engagement of "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" (Hong Kong 2030+)".

1.1.2 Following the announcement of advancing the studies on developing brownfield sites in the NTN in the 2018 Policy Address and the acceptance of the eight land supply options recommended by the Task Force on Land Supply in February 2019, the Feasibility Study on STLMC Development Node (STLMC FS) as the first phase development of NTN was jointly commissioned by the Civil Engineering and Development Department (CEDD) and the Planning Department (PlanD) in September 2019 to further develop the BLCP into a Preliminary Outline Development Plan (PODP) and confirm its feasibility. The PODP was presented to the Legislative Council in mid-2021 in the form of an Initial Land Use Plan.

1.1.3 In October 2021, the 2021 Policy Address proposed to expand STLMC Development Node into San Tin Technopole together with the Hong Kong-Shenzhen Innovation and Technology Park (HSITP) at the Loop. By making use of the land to be released by the Lok Ma Chau Boundary Control Point (LMC BCP) upon commissioning of the new Huanggang Port with co-location arrangement, and replanning the rural areas and fishponds around LMC BCP, it is proposed to increase the land supply for innovation and technology (I&T) development so as to achieve industry clustering effect with economy of scale. It is also proposed to increase the housing supply in San Tin Technopole to help address the housing shortage in the territory, in which some of the units can be used as talent apartments for I&T enterprises and research institutes. The Northern Metropolis has been incorporated in the Conceptual Spatial Framework promulgated in the Final Report of Hong Kong 2030+.

1.1.4 In the same month, CEDD and PlanD jointly commissioned AECOM Asia Co. Ltd. (AECOM) to undertake the Investigation Study on STLMC Development Node (hereinafter referred to as "the Project") to take forward the San Tin Technopole initiative and formulate the Recommended Outline Development Plan (RODP) for STLMC area, carry out engineering and technical assessments including the statutory Environmental Impact Assessment (EIA), and conduct public engagement (PE) to facilitate public discussions and foster consensus building. A 2-month PE was conducted between June and August 2023 to solicit public views on the RODP. Taking into account the public views collected in the PE, planning and engineering considerations, technical assessments as well as departmental comments and advice, a Revised RODP was formulated.

1.1.5 According to the Revised RODP, STLMC area will be developed into an I&T hub and a new community providing about 50,000 to 54,000 flats for a new population of about 147,000 to 159,000. It will generate about 165,000 jobs including 120,000 jobs on I&T sites. It will be an integral part of San Tin Technopole, providing ample amount of I&T land in various sizes for different I&T uses, as well as an integrated community with wide range of commercial, retail, community, recreational and cultural facilities.

1.1.6 The Project boundary is based on the boundary of Revised RODP. The location of the Project is provided in **Appendix A**.

1.2 Objective of this Report

1.2.1 This Health Impact Assessment Report is compiled in accordance with Section 3.4.8.4 of the EIA Study Brief (No. ESB-340/2021). The Health Impact Assessment Report includes:

- A summary of the findings from ground investigation works;
- Presentation of the distribution of arsenic based on the data obtained;
- Calculation of a Risk-Based Screening Level for the development; and
- Outline of mitigation measures including treatment of soils exceeding the threshold concentration.

1.3 Environmental Legislations, Standards and Guidelines

1.3.1 Relevant environmental legislation guidelines and standards on land contamination aspects include the following:

- Section 3 (Potential Contaminated Land Issues) of Annex 19 “Guidelines for Assessment of Impact on Sites of Cultural Heritage and Other Impacts” of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM).
- Section 3.4.8 of the EIA Study Brief (No. ESB-340/2021)
- Guidance Note for Contaminated Land Assessment and Remediation (Guidance Note)
- Practice Guide for Investigation and Remediation of Contaminated Land (Practice Guide)
- Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management (Guidance Manual)

1.4 Other Reference

1.4.1 This report also makes reference to the following:

- EIA report of North East New Territories New Development Areas (NENT NDA) (AEIAR-175/2013) and its Health Risk Assessment (HIA) Report in Appendix 8.4 of the EIA Report
- Geochemical Atlas of Hong Kong, Civil Engineering and Development Department, 1999

2 FINDINGS ON GROUND INVESTIGATION

2.1 Proposed Sampling Location

2.1.1 With reference to the Methodology Statement on Health Impact Assessment, 48 boreholes were proposed to verify the concentration and distribution of arsenic in the Project area, however, due to site constraints and land availability, only twenty-one (21) boreholes were completed. The twenty-one (21) boreholes are as follow:

EDH01 – EDH09, AEDH01, AEDH03, AEDH10 – AEDH14, AEDH23 – AEDH26, AEDH29

Specific constraints for each inaccessible borehole are provided in **Table 2.1**.

Table 2.1 Site Constraint for Proposed Borehole

Proposed Borehole	Site Constraint
AEDH08, AEDH17, AEDH28, AEDH31, AEDH34	Access to each location via a road/footpath is not viable for heavy equipment
All other proposed boreholes (AEDH02, AEDH04 – AEDH07, AEDH09, AEDH15 – AEDH16, AEDH18 – AEDH22, AEDH27, AEDH30, AEDH32, AEDH33, AEDH35 – AEDH 39)	Access not yet granted by Lands Department due to objection from villagers on the STLA application. Liaison with the villagers is on-going and approval for access is pending.

2.1.2 A total of 21 boreholes were advanced to a maximum depth of 30m with 191 samples recovered for determination of arsenic concentrations. Borehole locations is presented in **Figure 60670882/Z9/703**. Drillhole records by a qualified geologist and core box photos are presented in **Appendix B**. General site photos are provided in **Appendix C**.

2.1.3 Soil samples were recovered at 1.5m below ground level (bgl), 3m bgl, 6m bgl, 10m bgl, 15m bgl, 20m bgl, 25m bgl and 30m bgl at all sampling locations except for EDH02, AEDH01, AEDH25 and AEDH29.

- EDH02: bedrock (SILTSTONE) was encountered after 21.5m, therefore no samples suitable for soil analysis were recoverable from depths exceeding 20m bgl.
- AEDH01: bedrock (SILTSTONE) was encountered after 22.5m, therefore no samples suitable for soil analysis were recoverable from depths exceeding 20m bgl.
- AEDH25: bedrock (TUFF) was encountered after 16.8m. No samples suitable for soil analysis were recoverable at 30m bgl.
- AEDH29: bedrock (TUFF) was encountered after 22.7m, therefore no samples suitable for soil analysis were recoverable from depths exceeding 20m bgl.

2.2 Quality Assurance/Quality Control (QA/QC)

2.2.1 Soil boring/excavation and sampling was supervised by Resident Site Staff and the on-site land contamination specialist. All sampling equipment in contact with soils or groundwater was decontaminated between each excavation, drilling and sampling event to minimise the potential for cross contamination.

2.2.2 Sampling equipment blank and duplicate soil samples has been included as the field QA/QC sample programme:

- Sampling equipment blank is a sample of reagent water used to rinse the sampling equipment between the decontamination and sampling steps. Sampling equipment blank monitors the possibility of cross sample contamination and contamination from the “decontamination” step itself.

- Duplicate soil samples were submitted to the laboratory "blind", to evaluate variation in analyte concentration between samples collected from the same point and/or the laboratory precision in a given matrix.

2.2.3 The following QA/QC sample programme was adopted:

- 8 soil sampling equipment blanks were collected as post decontamination rinsate samples and analysed for arsenic;
- 9 duplicate soil samples were analysed for the same analytes as the primary samples.

2.2.4 The laboratory testing results for duplicate samples and equipment blank are presented in **Appendix D**. Relative percentage difference (RPD) between primary and duplicate soil samples ranged between 0% and 22.2% except for AEDH13 - 1.5m sample. The RPD of primary and duplicate sample of AEDH13 - 1.5m sample is 82.9%. The large variation in at soil duplicate is due to the inhomogeneous of the alluvium (i.e. brown and grey colour soil). Photos of the primary and duplicate sample of AEDH13 - 1.5m sample is provided in **Appendix C**. However, overall soil data quality is considered to be acceptable.

2.2.5 Laboratory analysis of the soil equipment blank samples did not detect any presence of the analysed parameters. This indicates that the decontamination of equipment during sampling activities was conducted adequately.

2.2.6 All laboratory QA/QC results (including laboratory duplicate, method blank, laboratory control spike and matrix spike) were within the acceptable ranges.

2.2.7 Overall field and laboratory QA/QC are acceptable and the data is considered suitable for assessment.

2.3 Arsenic Content in the Project area

2.3.1 From the 191 soil samples analysed, arsenic concentrations ranged between 1 and 1140 mg/kg. Chain of custody and Laboratory Certificates of Analysis are presented in **Appendix D**. A summary of arsenic soil concentrations is provided in **Table 2.2**. Laboratory analysis was conducted by ALS Technichem (HK) Pty Limited (address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong), a HOKLAS accredited laboratory (Registration No.: 066).

Table 2.2 Summary of Arsenic Soil Concentrations

Criteria	No. of Samples
No exceedance of RBRGs	67
Rural Residential RBRG (21.8 mg/kg) exceeded	124
Urban Residential RBRG (22.1 mg/kg) exceeded	124
Public Park RBRG (73.5 mg/kg) exceeded	79
Industrial RBRG(196 mg/kg) exceeded	41
NENT NDA EIA Health Risk Screening Level (571 mg/kg) exceeded	9

Note: (1): Units are milligrams per kilogram (mg/kg)

2.4 Natural Occurrence of Arsenic Soil

2.4.1 Six (6) sampling locations, namely EDH05, EDH06, EDH09, AEDH03, AEDH25 and AEDH29 are located on undeveloped ground which is less likely to be impacted by anthropogenic

activities thus are likely representative of background arsenic concentrations. To support the absence of anthropogenic sources of contamination at each location, historical aerial photos overlain with the as-built borehole locations are presented in **Appendix E** and summarized in **Table 2.3**.

Table 2.3 Observed Land Use at Sampling Locations for Background Arsenic

Criteria	Arsenic Content	
EDH05	1963:	Agricultural land
	1973:	Agricultural land
	1982:	Agricultural land
	1993:	Vegetated land
	2002:	Vegetated land
	2006:	Vegetated land
	2014:	Vegetated land
	2020:	Vegetated land
EDH06	1963:	Agricultural land
	1973:	Agricultural land
	1982:	Agricultural land
	1993:	Vegetated land
	2002:	Vegetated land
	2006:	Vegetated land
	2014:	Vegetated land
	2020:	Vegetated land
EDH09	1963:	Access Road
	1973:	Access Road
	1982:	Access Road
	1993:	Access Road
	2002:	Access Road
	2006:	Access Road
	2014:	Access Road
	2020:	Access Road
AEDH03	1963:	Pond
	1973:	Pond
	1982:	Pond
	1993:	Vegetated land
	2002:	Vegetated land
	2006:	Vegetated land
	2014:	Vegetated land
	2020:	Vegetated land
AEDH25	1963:	Vegetated land
	1973:	Vegetated land
	1982:	Vegetated land
	1993:	Vegetated land
	2002:	Vegetated land
	2006:	Vegetated land
	2014:	Vegetated land
	2020:	Vegetated land
AEDH29	1963:	Vegetated land
	1973:	Vegetated land
	1982:	Vegetated land
	1993:	Vegetated land
	2002:	Vegetated land
	2006:	Vegetated land
	2014:	Vegetated land
	2020:	Vegetated land

2.4.2 With reference to the result summary in **Appendix D**, of 56 samples analysed from the six sampling locations 30 results exceed at least one of the post development land use scenario RBRGs. Arsenic concentrations at the six sampling locations considered to be naturally occurring are presented in **Table 2.4**.

Table 2.4 Summary of Arsenic Soil Concentrations for Background Samples

Borehole location	Arsenic Concentration (1)
EDH05	16 - 198
EDH06	3 - 608
EDH09	5 – 129
AEDH03	3 – 86
AEDH25	2 – 23
AEDH29	15 -249

Note: (1): Units are milligrams per kilogram (mg/kg)

2.4.3 According to Geochemical Atlas of Hong Kong in **Figure 60670882/Z9/702**, the arsenic soil content of the Project area ranges between 58 mg/kg and 1080 mg/kg except for the northern tip of the Project area where concentrations are interpolated to be far lower. The detected arsenic content at these 'background' locations agrees with arsenic distribution published in the Geochemical Atlas, therefore arsenic at these locations is considered to be naturally occurring.

2.5 Comparison of Arsenic Level with NENT NDA soil data

2.5.1 With reference to the HIA report of NENT NDA, 389 soil samples were collected within Kwu Tung North. The percentile and average value of the arsenic level in the Project area and NENT NDA EIA are provided in **Table 2.5** for comparison.

Table 2.5 Comparison of Arsenic Soil Concentrations in the Project area and NENT NDA EIA (Kwu Tung North)

Percentile / Average	the Project area [(1)]	NENT NDA EIA (Kwu Tung North) [(1), (2)]
Maximum	1140	1220
90-th Percentile	332	323
80-th Percentile	210	179
70-th Percentile	128	122
60-th Percentile	79	88
Average	130	125
Medium	59	71

Note: (1): Units are milligrams per kilogram (mg/kg)
(2): Value extracted from Appendix 8.4 of NENT NDA EIA. A value “23,400 mg/kg” is considered as “Outliner” and is not taken into account.

2.5.2 The maximum detection of arsenic at the Project area is lower than that at Kwu Tung North. It is considered that the arsenic soil concentrations in the Project area and NENT NDA EIA (Kwu Tung North) are similar.

3 HEALTH IMPACT ASSESSMENT FOR ARSENIC CONTAINING SOIL

3.1 Background

3.1.1 High arsenic levels were identified in Kwu Tung North during the course of NENT NDA EIA. Health impact assessment for high arsenic containing soil identified in the Project area will make reference to the NENT NDA EIA. The health impact assessment for arsenic soil exposure with ingestion pathway and inhalation pathway is provided below.

3.2 Health Impact Assessment – Ingestion Pathway

3.2.1 The HIA report of NENT NDA adopted minimal risk levels (MRLs) for non-cancer effects via the oral ingestion pathway from the United States Agency for Toxic Substances and Disease Registry (ATSDR) for acute exposures (exposures less than two weeks) and for chronic exposures (exposures greater than one year). The minimal risk level (MRL) is a dose below which non-cancerous harmful effects are not expected. The chronic duration MRL remains in use for deriving soil screening values in the USA and is adopted for this health risk assessment.

3.2.2 The final soil screening value of HIA report of NENT NDA is based on chronic exposure because there is no way to prevent future site residents (as the most sensitive receptors) exceeding the acute exposure duration of two weeks therefore adoption of a less conservative (i.e., acute) MRL for this health risk assessment in not appropriate.

3.2.3 The arsenic soil screening value was based on non-cancer effects for the oral pathway. It is not necessary to adopt toxicity reference values (TRV) based on cancer effects for the updated health risk assessment.

3.2.4 The arsenic soil screening value is calculated using the same methodology as the HIA report of NENT NDA:

$$\text{Arsenic soil screening value} = \frac{\text{MRL} * \text{body weight} * 1{,}000{,}000}{\text{Amount of soil ingested per day} * \%\ \text{absorption}}$$

Table 3.1 Variables Description for Soil and Dust Ingestion Intake Calculation

Variable	Units	Description
Arsenic soil screening value	mg/kg	Soil screening value for the incidental ingestion pathway
MRL	mg/kg/day	Minimal risk level (MRL) Short-term (Acute) MRL = 0.005 mg/kg/day (1) Long-term (Chronic) MRL = 0.0003 mg/kg/day (1)
Body weight	kg	Body weight
Amount of soil ingested per day	mg/day	Incidental ingestion rate of soil and dust
% absorption	unitless	Bioavailability 42% (2)

Note: (1): Minimal Risk Levels (MRLs) for Hazardous Substances, Agency for Toxic Substances and Disease Registry, United States, January 2023
(2): HIA report of NENT NDA

3.2.5 Calculation of arsenic soil screening value is provided at **Appendix F**. Based on the result for the ingestion pathway, a threshold soil arsenic level is calculated as **571 mg/kg**.

3.3 Health Impact Assessment – Inhalation Pathway

3.3.1 Air modelling and conclusion of acceptable risk via the inhalation pathway will be referenced to the HIA report of NENT NDA.

3.3.2 Background arsenic concentrations in air in the Yuen Long area have generally reduced since 2012. An ambient air arsenic concentration of 4.7 ng/m^3 in the HIA report of NENT NDA referenced data from Yuen Long Air Quality Monitoring Station from 2008 to 2012. The 2017-2021 average background arsenic concentration from the same station is 2.3 ng/m^3 as presented in **Table 3.2**.

Table 3.2 Summary of Annual Ambient Arsenic Levels Recorded in EPD's Yuen Long Air Quality Monitoring Station 2017 - 2021

Arsenic Level	2017	2018	2019	2020	2021
Annual Arsenic Level (ng/m^3)	3.3	2.5	2.2	1.6	1.9
5-year Average Arsenic Level (ng/m^3)	2.3				

3.3.3 The risk level (cancer risk) and daily intake of ambient arsenic (non-cancer risk) for Kwu Tung North in the HIA report of NENT NDA are extracted in **Table 3.3** and **Table 3.4**.

Table 3.3 Estimated Risk Levels (Cancer Risk) under Mitigated Scenario in Kwun Tung North (HIA report of NENT NDA)

Arsenic Concentration			**Overall Risk Level**	**% of WHO risk level**
Percentile	**As in Soil (mg/kg)**	**As in Air during Construction (ng/m3)**		
Maximum	1,220	11.7	8.64 x 10-6	86.4%
95th percentile	461	7.7	7.77 x 10-6	77.7%
Average	125	5.7	7.34 x 10-6	73.4%
Medium	71	4.7	7.12 x 10-6	71.2%
World Health Organisation Average annual 6.6 ng/m^3			1 x 10-5	100%

Note: Mitigated Scenario means that dust suppression by regular watering per good site practice.

Table 3.4 Daily Intake of Ambient Arsenic (Non-Cancer Risk) under Mitigated Scenario in Kwun Tung North (HIA report of NENT NDA)

Arsenic Concentration			**Daily Intake (µg/kg/day)**	**% of MRL**
Percentile	**As in Soil (mg/kg)**	**As in Air during Construction (ng/m3)**		
Maximum	1,220	11.7	0.0052	1.7%
95th percentile	461	7.7	0.0034	1.1%
Average	125	5.7	0.0025	0.83%
Median	71	4.7	0.0021	0.70%

Note: Mitigated Scenario means that dust suppression by regular watering per good site practice.

3.3.4 With reference to **Section 2.5.2**, soil arsenic concentrations are similar in the two regions (the Project area and Kwu Tung North). With a 50% reduction of background arsenic ambient arsenic levels, the risk level (Cancer Risk) and daily intake of ambient arsenic (Non-Cancer Risk) in the Project area is expected to be lower and below the World Health Organisation (WHO) risk level (1×10^{-5}) and MRL (0.3 µg/kg/day) respectively.

3.3.5 As risk associated with the arsenic inhalation pathway within the Project area is negligible, this pathway is not considered quantitatively.

3.4 Soil Screening Level

3.4.1 Based on the result of Health Impact Assessment for the Ingestion Pathway in **Section 3.2**, a risk based arsenic threshold is calculated as **571 mg/kg**. Soil exceeding the soil acceptance level (i.e. soil with arsenic concentrations exceeding 571 mg/kg) will be referred as High Arsenic Containing soil (HAC soil). Treatment will be required for disturbed HAC soil.

4 MITIGATION MEASURES FOR HIGH-ARSENIC CONTAINING SOIL

4.1 Proposed Mitigation Measures during Construction Phase

4.1.1 During the construction phase, workers (particularly those involved in excavation work) may be exposed to HAC soil. To minimize exposure to HAC soil and reduce potential health risk, the Factories and Industrial Undertakings Ordinance (Chapter 59) and its subsidiary regulations should be followed by construction site personnel. The following guidelines should be referred, including:

- *Code of Practice on Control of Air Impurities (Chemical Substances) in the Workplace*
- *Air Impurities in the Workplace,* General Guides on Occupational Health and Hygiene by Labour Department
- The Protection of Workers' Health Series - Control of Toxic Substances in the Workplace

4.1.2 The Contractor should include control measures to minimize arsenic soil exposure in the safety plan. Mitigation measures should include but not be limited to the following:

- Set up a list of safety measures for site workers;
- Provide written information and training on presence of arsenic soil for site workers;
- Keep a site plan (if available) locating HAC soil and stockpiles of excavated HAC soil;
- Maintain a hygienic working environment;
- Avoid dust generation;
- Designated indoor facility should be provided for lunch/break;
- Hand-washing facility should be provided along with welfare amenities for workers

4.1.3 Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation should be carried out. Specific mitigation measures for excavation and earth moving included the following:

- Stockpiles of excavated soil should be covered with impermeable sheeting;
- Imposition of speed controls for vehicles on site haul roads;
- Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather

4.2 Proposed Mitigation Measures during Operation Phase

4.2.1 Provided further arsenic assessment and treatment (if required) of HAC soil will be implemented with accordance with **Section 5**, a 4m – 8m thick free/treated arsenic zone will be provided underneath further development. This 4m – 8m thick free/treated arsenic zone will provide effective barrier for future users/residents during operation phase and therefore, no mitigation measures is required during operation phase.

5 TREATMENT APPROACH

5.1 General Treatment Approach

5.1.1 A screening level of arsenic acceptance level 571 mg/kg will be adopted. Disturbed soil with arsenic concentrations above 571 mg/kg will require treatment.

5.1.2 As the arsenic distribution is limited to the borehole information referenced in **Section 2** and with reference to the Geochemical Atlas in **Figure 60670882/Z9/702**, further arsenic assessment should be provided within the Project area prior to development. Treatment for HAC soil is proposed for land uses other than green belt in **Appendix A**.

Green Belt

5.1.3 For "Green Belt", no development of the Green Belt area and no active use at the Green Belt area is anticipated. No treatment is proposed for HAC soil in Green Belt area.

Land uses other than Green Belt

5.1.4 For any excavated HAC soil (i.e. Arsenic concentration >571 mg/kg) encountered during development, these materials should be proper treated with cement solidification/stabilization and/or any other methods as appropriate. The treated materials should be reused in-situ or ex-situ as backfilling.

5.2 Detailed Treatment Approach

5.2.1 With reference to previous treatment approach in NENT NDA, a similar treatment approach is proposed. The Government will treat HAC soil in the shallow region before land allocation or land lease. The treatment depth will depend on the future land use per the Revised RODP (**Appendix A**). Subsequent developers/Works Departments will treat HAC soil in deeper regions during excavations including basement, piling and utilities.

During Site Formation

5.2.2 During site formation, arsenic assessment will be carried out on development areas to the treatment depths stated in **Table 5.1**. The Government will be responsible for the treatment of HAC soil to the proposed treatment depths in **Table 5.1**.

Table 5.1 Proposed Treatment Depth during Site Formation

Land Use	Treatment Depth (m) (1)	Assumption
Residential / Commercial uses: • Public Housing Site • Private Housing – Zone 1 • Other Specified Uses (Mixed Use) – Zone 1 • Other Specified Uses (Mixed Use) – Zone 2 • Other Specified Uses (Innovation and Technology) • Other Specified Uses (Logistics, Storage and Workshop)	0 - 8	Assuming two levels of underground basement
Government / Education / Road: • Government, Institution or Community • Government, Institution or Community (Railway Ancillary Facilities) • Education • Other Specified Uses (Ventilation Building) • Other Specified Uses (Effluent Polishing Plant) • Other Specified Uses (Water Reclamation Plant) • Other Specified Uses (Green Fuel Station) • Other Specified Uses (District Public Transport Interchange) • Open Space • Amenity • Road • Other Specified Uses include Refuse Transfer Station, Refuse Collection Point, Resource Recovery Facilities, Electricity Substation, District Cooling System, Sewage Pumping Station, Stormwater Pumping Station Other: • Village Re-site (2)	0 - 4	Assuming one level of underground basement and Clean the soil for most future utility excavation by utility undertakers

Note: (1): Treatment Depth with respect to the final formation level.
(2): For New Territories Exempted Houses, not more than 3 storeys

5.2.3 The site formation Contractor should prepare an Arsenic Assessment Plan (AAP) detailing the site investigation for arsenic for the soil strata between existing ground surface and the proposed treatment depth with respect to the final formation level. The AAP should be submitted for EPD endorsement.

5.2.4 After completion of site investigation according to the endorsed AAP, an Arsenic Assessment Report (AAR) will be submitted to EPD for approval. The AAR should report the findings and laboratory results of site investigation and identify if any exceedance of the arsenic soil acceptance level.

5.2.5 If HAC soil is identified (i.e., exceedance of the arsenic soil acceptance level) in the AAR, an Arsenic Treatment Plan (ATP) will be submitted to EPD for approval. The AAP shall detail the treatment approach (include treatment method, HAC soil delineation, treatment target, backfilling location). For any excavated HAC soil, these materials should be properly treated and backfilled.

5.2.6 During site formation, HAC soil in the treatment depth with respect to the final formation level should be treated with reference to ATP. An Arsenic Treatment Report (ATR) will be submitted to EPD for approval. The ATR should report on the treatment of HAC soil.

5.2.7 The ATR should be provided as a reference document for subsequent developer/works departments. It is suggested that treatment requirement for deeper soil should be incorporated

into land lease for later development. The Developer/Works Departments will be responsible for treatment of excavated HAC soil underneath the formation treatment depth.

During Construction of Superstructures

5.2.8 When a site is handed over to Developer or Works Departments for superstructure construction, the Developer or Works Departments should provide arsenic assessment where excavation including basements, piling and utilities are required. The Developer or Works Department will be responsible for treatment of excavated HAC soil. The excavated HAC soil should be treated by cement solidification/stabilisation (S/S) and/or any other methods as appropriate.

5.2.9 The superstructure Contractor should prepare an AAP detailing the site investigation for arsenic assessment for the excavation limits including basement excavation, utility works, replacement piling, etc.

5.2.10 An AAR will be submitted to EPD for approval. The AAR should report the findings and laboratory result from site investigation and identify if any exceedance of the arsenic soil acceptance level.

5.2.11 If HAC soil is identified (i.e., exceedance of the arsenic soil acceptance level) in the AAR, an ATP will be submitted to EPD for approval. The AAP should detail the treatment approach (include treatment method, HAC soil delineation, treatment target, backfilling location). For any excavated HAC soil, these materials should be proper treated and backfilled.

5.2.12 During construction, excavated HAC soil should be treated with reference to ATP. An ATR will be submitted to EPD for approval. The ATR should report on the treatment of HAC soil.

6 PROPOSED TREATMENT FOR ARSENIC CONTAINING SOIL

6.1 Review On Treatment for Arsenic Containing Soil

6.1.1 The possibility of carrying out in-situ remediation and recycling and reuse of remediated materials should be explored first. Ex-situ remedial measures could then be considered if the in-situ remediation is not considered to be practical. Off-site disposal of contaminated materials to landfills should be adopted only as a last resort.

6.1.2 The applicable treatment for arsenic containing soil was review and provided in **Table 6-2**.

6.1.3 Based on previous study(1), arsenic is not readily leachable. The efficiency of soil washing or electrokinetic separation of arsenic strongly bound to soil is anticipated to be low. For in-situ vitrification, since the groundwater table level in the region is shallow, the application of in-situ vitrification will be limited. Moreover, local experience on in-situ vitrification is also limited.

6.1.4 Cement S/S has been proven successful for previous Hong Kong remediation projects and more importantly in Kwu Tung North. The treatment method is simple and treatment requirement (e.g. closure assessment/treatment verification) are well-established in the EPD Practice Guide and with previous project experience.

6.2 Proposed Treatment for HAC Soil

6.2.1 HAC soil is proposed to be treated by Cement S/S and followed by in-situ or ex-situ as backfilling.

Outline Operation of Treatment

6.2.2 During construction works (site formation or construction of superstructure), if HAC soil is confirmed in the AAR, an ATP should be prepared for the treatment of arsenic. Detailed treatment should be carried out in accordance with the approved ATP. The following **Sections 6.2.4 - 6.2.13** describe an outline for the treatment operation.

6.2.3 The following sections only outline the ex-situ cement S/S treatment. In case in-situ cement S/S treatment and/or any other methods are considered more practical, the contractor should provide detail on in-situ cement S/S treatment in an ATP for EPD approval.

Excavation

6.2.4 Excavation extents for HAC soil should make reference to the AAR and ATP. Clean soil and HAC soil should be separated and stockpiled in designated areas. A closure assessment is required to confirm the completion of excavation.

Closure Assessment

6.2.5 Upon completion of excavation, a closure assessment should be conducted. Confirmatory sampling and analysis should be carried out at the limits/sidewalls and base of the excavations to confirm that all the HAC soil has been excavated.

6.2.6 Confirmation samples should be collected from sidewalls of the excavation with a lateral spacing of not more than 15m. The depth of sidewall samples should be at the depth where the high arsenic was identified. Confirmatory samples from the bottom of excavations should be collected at grid spacings of not larger than 15m x 15m (i.e. one sample per approximately 225m^2). Confirmatory samples will be analysed for arsenic and results compared with the arsenic acceptance level of 571 mg/kg.

6.2.7 If the arsenic acceptable level of 571 mg/kg is exceeded, the excavation should be extended in vertical increments of 0.5m and horizontal increments of 7.5m depending on whether the exceeding confirmation sample is collected along the boundary or from excavation base. Additional samples should be collected and analysed until all confirmation samples are below the arsenic acceptable level of 571 mg/kg.

6.2.8 If the confirmation samples are below the acceptable level of 571 mg/kg, removal of soil for treatment should be considered complete and the open excavation can be backfilled with clean fill or treated materials.

Cement Solidification/Stabilization (S/S)

6.2.9 Cement S/S will involve mixing the HAC soil with cement, water or other additives. It is recommended on-site pilot-scale trials should be conducted to determine the optimal ratios of cement, HAC soil and any additives, the curing method and time, mixing method and other treatment parameters.

6.2.10 Full scale cement S/S should be carried out with reference to pilot-scale trials result. Cement S/S treatment will include pre-treatment screening, cement/additive mixing, curing storage and treated soil storage. Verification sample will be analysed for the effectiveness of treatment.

Verification Sample after Treatment

6.2.11 Verification samples should be collected at a frequency of one sample per 200m^3 of treated soil. The verification sample will be tested for the treatment criteria detailed in **Table 6.1**.

Table 6.1 Cement S/S Treatment Criteria

Parameter	Reference testing method	Limit
TCLP for arsenic (1)	USEPA Method 1311 and USEPA 6010/6020	Not greater than 5 mg/L (Universal Treatment Standards)
UCS (2)	BS 1377 - Methods of test for soils for civil engineering purposes	Not less than 1 MPa

Note:
1. Performed with composite sample
2. No curing duration requirement as long as compliance

6.2.12 If the verification sample result does not meet the treatment criteria, the treated soil should be broken up and re-treated by cement S/S. The re-treated soil should be tested for the treatment criteria again to confirm effective treatment.

Handling of Treated Materials

6.2.13 After the verification soil sample demonstrated compliance with the treatment criteria, the treated materials should be broken down to acceptable grain size (250mm) and reused on-site or off-site as backfilling materials.

Table 6-2 Possible Remediation Methods for Soil and Groundwater Contamination

Remediation Option	Description	Applicability / Advantages to Environment	Limitations / Disadvantages to Environment
Soil			
Soil Washing	An Ex-situ soil separation method based on mineral processing techniques. A water-based process to remove contaminants by scrubbing soils ex-situ.	• Applicable to remove inorganic contaminants such as heavy metal from coarse-grained soils.	• Effectiveness dependent on soil coarseness. Addition of polymer may be required to remove contaminants. • The difficulty of formulating washing fluid increases with the complexity of waste mixtures. • Further treatment and disposal may be required for the residuals. • Limited local experience
Solidification / Stabilization	An Ex-situ immobilisation technique which mixes contaminated soil with binding agents (e.g. cement) so as to physically bind contaminants into stable mass.	• Applicable to treat inorganic contaminants such as heavy metals. • Successful local case studies, e.g. decontamination works at the Cheoy Lee Shipyard at Penny's Bay, reclamation works at North Tsing Yi Shipyard site, decommissioning of Kwai Chung Incinerator, and few isolated sites identified in the Deep Bay Link project	• Hindrance of large boulders in mixing process possible. Soil sorting may be necessary before treatment.
In-situ vitrification	The process electrically melts the waste media, forming a stable glass-like solid matrix.	• Treated product is stable • Short treatment time	• Does not work for in-situ soil with high moisture content/under groundwater level. • Requires sufficient glass-forming material in soil (silicon and aluminium oxide) • Energy-intensive, requires electricity supply • Lack of local experience
Electrokinetic Separation	The principle of electrokinetic remediation relies upon application of a low-intensity direct current through the soil between ceramic electrodes that are divided into a cathode array and an anode array. This mobilizes charged pollutant toward the electrode.	• Most applicable in low permeability soils.	• Effectiveness dependent on moisture content of soil, ineffective with soil of moisture content less than 10%. • Further treatment and disposal required for soil around electrode • Lack of local experience

7 CONCLUSION

7.1.1 With refence to available ground investigation results, samples from the soil profile within 21 boreholes have been analysed for arsenic. The average arsenic content is 130mg/kg and maximum detection at 1140 mg/kg. The arsenic content in the Project area soil is assessed to be naturally occurring and not as a result of anthropogenic contamination. It is considered that the arsenic soil concentrations in the Project area and NENT NDA EIA (Kwu Tung North) are similar.

7.1.2 Based on the Health Impact Assessment for the Ingestion Pathway detailed in **Section 3.2**, a risk based arsenic threshold is calculated as **571 mg/kg**.

Proposed Mitigation Measures

7.1.3 During construction of Project, the Contractor shall follow all requirements under the Factories and Industrial Undertaking Ordinance (F&IUO) and its subsidiary regulations. Control measures shall be proposed in a safety plan which shall be fully implemented by the Contractor.

7.1.4 Provided further arsenic assessment and treatment (if required) of HAC soil will be implemented with accordance with **Section 5**, a 4m - 8m thick free/treated arsenic zone will be provided underneath further development. This 4m - 8m thick free/treated arsenic zone will provide effective barrier for future users/residents during operation phase and therefore, no mitigation measures is required during operation phase.

Treatment Approach

7.1.5 HAC soil is proposed to be treated by Cement S/S and followed by in-situ or ex-situ as backfilling.

7.1.6 The Government will treat the HAC soil in the shallow region before land allocation or land lease. The treatment depth will depend on the future land use in Revised RODP (per **Appendix A**). Subsequent Developer/Works Departments will treat HAC soil in deep regions for excavations required for basements, piles and utilities.

8 REFERENCE

(1) Li, Jiang-Shan et al. “Arsenic-Containing Soil from Geogenic Source in Hong Kong: Leaching Characteristics and Stabilization/solidification.” Chemosphere (Oxford) 182 (2017): 31–39. Web.

(2) Air Quality Reports - Summary of Airborne Species Concentration Derived from RSP, EPD https://www.aqhi.gov.hk/en/download/air-quality-reports0c72.html?start=4

Figures

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND:

PROJECT BOUNDARY

STLMC DN PROJECT

N

824000 E

826000 E

828000 E

840000 N

838000 N

LOK MA CHAU LOOP

LOK MA CHAU

FUNG KONG SHAN

LOK MA CHAU BOUNDARY CONTROL POINT

SAM PO SHUE

PUN UK TSUEN

CHAU TAU

PAK SHEK AU

SAN TIN

TUNG CHAN WAI

MAN TIN CHEUNG PARK

KI LUN TSUEN

TSING LUNG TSUEN

MAI PO SAN TSUEN

MAI PO LUNG TSUEN

EDEN VILLA

SCENIC HEIGHTS

SHEK WU WAI SAN TSUEN

SAN TIN BARRACKS

SIU HUM TSUEN

ROYAL PALMS

ROLLING HILLS

THE VINEYARD

TAM MEI BARRACKS

NGAU TAM MEI EAST

NGAU TAM MEI WATER TREATMENT WORKS

FAIRVIEW PARK

SAN TIN HIGHWAY

SAN SHAM ROAD

SAN TIN TSUEN ROAD

SHEK WU WAI ROAD

FANLING HIGHWAY

EAST RAIL LINE

SHENZHEN RIVER

Plot File by: LIANJ2
PATH P:\PROJECTS\60670882\DRAWINGS\REPORTZ\9Z9_701.dgn
10/27/2023

AECOM

PROJECT
項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

規劃署
Planning Department

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STATUS
階段

SCALE
比例

A3 1 : 20000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

60670882

AGREEMENT NO.
協議編號

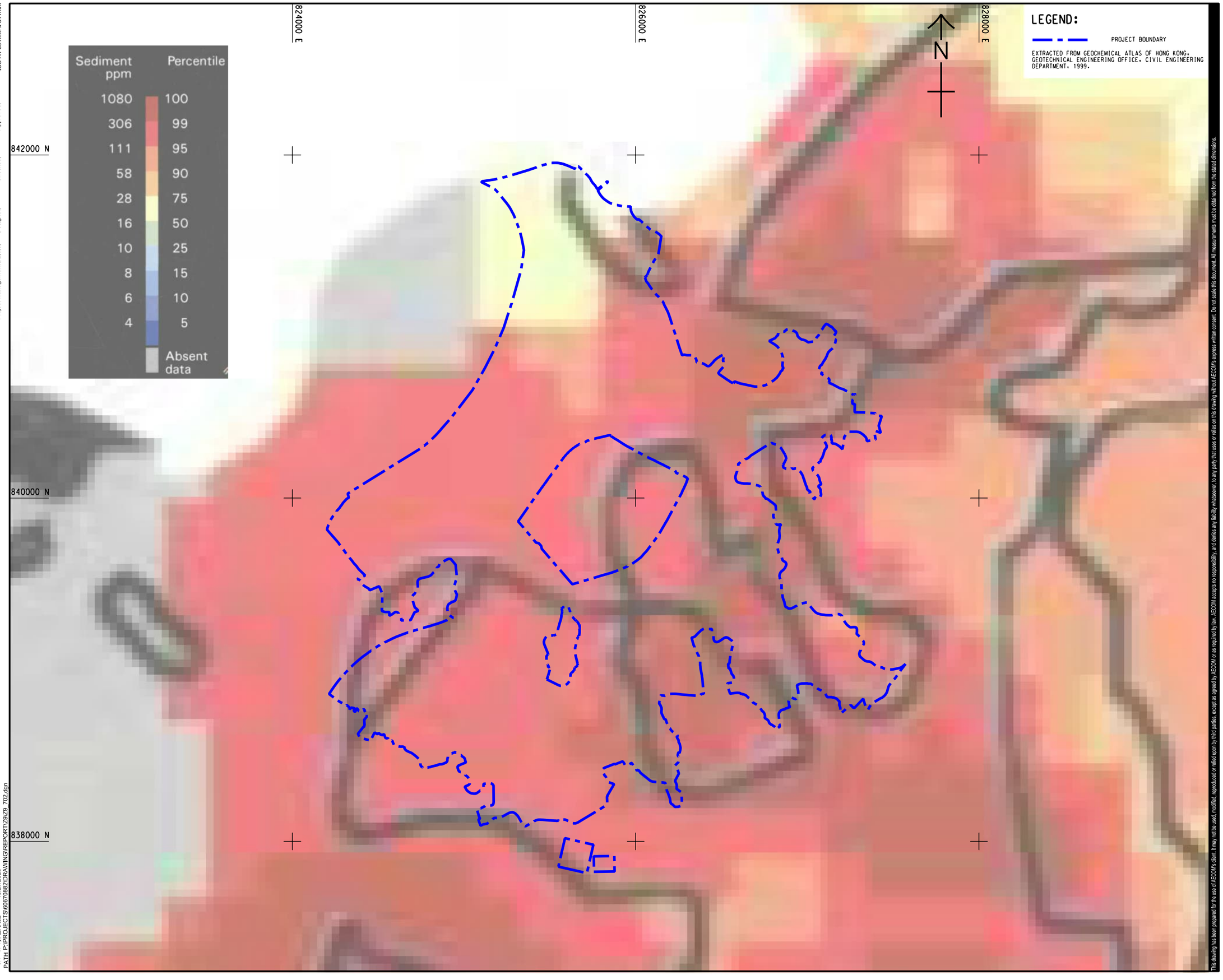
CE 20/2021

SHEET TITLE
圖紙名稱

PROJECT LOCATION PLAN

SHEET NUMBER
圖紙編號

60670882/Z9/701



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Approved:

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Project Management Initials:

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階段

SCALE 比例
A3 1 : 20000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

ARSENIC DISTRIBUTION MAP WITH PROJECT BOUNDARY

SHEET NUMBER
圖紙編號

60670882/Z9/702

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND:

PROJECT BOUNDARY

BOREHOLE NOT ACCESSED DUE TO SITE CONSTRAIN

AS-BUILT BOREHOLE

825000 E

826500 E

828000 E

841000 N

839500 N

838000 N

N

LOK MA CHAU BOUNDARY CONTROL POINT

SAM PO SHUE

LOK MA CHAU

PUN UK TSUEN

CHAU TAU

PAK SHEK AU

SAN TIN

TSING LUNG TSUEN

MAN TIN CHEUNG PARK

KI LUN TSUEN

MAI PO SAN TSUEN

MAI PO LUNG TSUEN

EDEN VILLA

SCENIC HEIGHTS

ROYAL PALMS

ROLLING HILLS

SHEK WU WAI SAN TSUEN

SIU HUM TSUEN

SAN TIN BARRACKS

THE VINEYARD

EDH01 EDH02 EDH03 EDH04 EDH05 EDH06 EDH07 EDH08 EDH09

AEDH01 AEDH02 AEDH03 AEDH04 AEDH05 AEDH06 AEDH07 AEDH08 AEDH09 AEDH10 AEDH11 AEDH12 AEDH13 AEDH14 AEDH15 AEDH16 AEDH17 AEDH18 AEDH19 AEDH20 AEDH21 AEDH22 AEDH23 AEDH24 AEDH25 AEDH26 AEDH27 AEDH28 AEDH29 AEDH30 AEDH31 AEDH32 AEDH33 AEDH34 AEDH35 AEDH36 AEDH37 AEDH38 AEDH39

SHENZHEN RIVER

SAN SHAM ROAD

SAN TIN TSUEN ROAD

SAN TIN HIGHWAY

SHEK WU WAI ROAD

CASTLE PEAK ROAD

TAM KON CHAU ROAD

FANLING HIGHWAY

EAST RAIL LINE

HIGH ISLAND RESERVOIR EAST DIAMOND HILL

AS-BUILT BOREHOLE

POINTS	EASTING	NORTHING
EDH01	825589.49	841272.15
EDH02	825922.59	840783.60
EDH03	826039.95	840405.06
EDH04	826670.74	840427.77
EDH05	826890.48	840510.25
EDH06	826519.33	840084.16
EDH07	825583.89	839224.69
EDH08	825108.33	839149.16
EDH09	824565.53	838771.69
AEDH01	826155.00	841121.65
AEDH03	826331.91	840695.80
AEDH10	826446.63	839924.78
AEDH11	826352.98	839820.92
AEDH12	826546.24	839851.23
AEDH13	826652.95	839700.87
AEDH14	826598.96	839467.58
AEDH23	825374.82	839461.36
AEDH24	826005.63	839475.83
AEDH25	825902.48	839272.77
AEDH26	826058.66	839311.79
AEDH29	825993.23	839216.18

PROPOSED BOREHOLE NOT ACCESSED DUE TO SITE CONSTRAIN

POINTS	EASTING	NORTHING
AEDH02	826112.62	840751.21
AEDH04	826638.29	840606.58
AEDH05	827053.97	840740.49
AEDH06	826306.12	840225.18
AEDH07	826484.02	840305.80
AEDH08	826960.92	840311.45
AEDH09	827177.09	840458.44
AEDH15	826711.82	839312.73
AEDH16	826924.23	839246.50
AEDH17	826800.70	839061.91
AEDH18	827087.55	839130.61
AEDH19	824567.60	839502.03
AEDH20	824752.24	839607.85
AEDH21	824979.56	839678.40
AEDH22	825181.52	839409.38
AEDH27	826131.78	839122.56
AEDH28	825706.53	839098.16
AEDH30	826135.22	838860.36
AEDH31	825645.08	838934.49
AEDH32	825535.45	838846.79
AEDH33	825749.34	838771.62
AEDH34	825991.86	838604.39
AEDH35	825516.95	838500.69
AEDH36	825293.66	838695.51
AEDH37	825521.93	838302.64
AEDH38	825328.75	838162.63
AEDH39	824390.07	838929.95

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10/27/2023

AECOM

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FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

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STATUS
階段

SCALE 比例: A3 1 : 15000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60670882

AGREEMENT NO. 協議編號: CE 20/2021

SHEET TITLE
圖紙名稱

LOCATION PLAN OF ARSENIC BOREHOLE

SHEET NUMBER
圖紙編號

60670882/Z9/703

Appendix A

Revised Recommended Outline Development Plan

ISO A3 297mm x 420mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND

- Project Boundary
- RSc — Public Housing
- R1 — Private Housing
- MU — Mixed Use
- V(1) — Village Type Development
- I&T — Innovation and Technology
- LSW — Logistics, Storage and Workshop
- OU — Other Specified Uses
- VB — Ventilation Building
- G — Government, Institution or Community
- E — Education
- O — Open Space
- GB — Green Belt (✱with Permitted Burial Ground)
- A — Amenity
- Hong Kong-Shenzhen Innovation & Technology Park (Work In Progress)
- Road
- East Rail Line (Lok Ma Chau Spur Line)
- Proposed Northern Link Main Line (subject to study)
- Possible Alignment of Northern Link Spur Line (indicative only, subject to study)
- NBA — Non-building Area
- Overhead Transmission Lines
- Lot Subdivision
- Height Band Subdivision
- Linked Sites

NOTATION

- Existing MTR Station
- Performance Venues and Museum
- Library
- Indoor Sports Centre
- Swimming Pool Complex
- Market
- Urban Farm
- EcoHub
- Refuse Collection Point
- Green Fuel Station
- Electricity Substation
- District Cooling System
- Cycle Parking Facility
- Secondary School
- Primary School
- R — Reserve
- RTS — Refuse Transfer Station
- RRF — Resource Recovery Facilities
- UST — Underground Storage Tank
- RP — Retention Pond
- IP — Integrated Pond
- SPS — Stormwater Pumping Station
- SmPS — Stormwater Pumping Station
- DPTI — District Public Transport Interchange
- PTI — Public Transport Interchange
- TIH — Transport Interchange Hub
- P — Public Vehicle Park
- D1 — District Distributor Road
- L1 — Local Distributor Road

Hong Kong-Shenzhen Innovation & Technology Park

Lok Ma Chau Station

Shenzhen River

AFCD Fisheries Research Centre

HKPF Weigh Station

Customs Dog Base

Lok Ma Chau

Overhead Transmission Lines

Proposed Sam Po Shue Wetland Conservation Park

San Sham Road

Government Data Centre Complex

Poon Uk Tsuen

To Planned Kwu Tung Station

San Tin Eastern Main Drainage Channel

Chau Tau

Kwu Tung North New Development Area

San Tin Western Main Drainage Channel

FANLING HIGHWAY

Tung Chun Wai

Yan Sau Wai

HyD Depot

Divisional Police Station and Related Facilities

On Loong Tsuen

Wing Ping Tsuen

Divisional Fire Station cum Ambulance Depot and Staff Quarters

Fan Tin

San Loong Tsuen

Youth Facilities

Ki Lun Shan

Ching Loong Tsuen

San Tin Eastern Main Drainage Channel

AFCD Wetland Conservation Park Management Office

SAN TIN HIGHWAY

Cultural & Recreational Complex

Effluent Polishing Plant and Food Waste Pre-treatment Facilities

Shek Wu Wai

Mai Po Tsuen

Healthcare Facilities

Connecting Future Northern Metropolis Highway (indicative only)

FSD NT Workshop and Related Facilities

Joint-user General Office Building and Clinics and Related Facilities

San Tin Barracks

Dedicated Rehousing Estate

Water Reclamation Plant

GIC Complex

Ngau Tam Shan

Proposed Northern Link Main Line and San Tin Station (subject to study)

San Tin Western Main Drainage Channel

Reclaimed and Fresh Water Service Reservoirs (indicative only)

Tam Mei Barracks

N

0 150 300 600 900m

AECOM

PROJECT
項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

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業主

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規劃署 Planning Department

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STATUS
階段

SCALE 比例: A3 1:15000

DIMENSION UNIT 尺寸單位: METRES

DATE
日期

August 2023

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60670882

AGREEMENT NO. 協議編號: CE 20/2021

SHEET TITLE
圖紙名稱

Revised Recommended Outline Development Plan

SHEET NUMBER
圖紙編號

Plot File by: $USER$
PATH: $FILE$

$DATE$

Appendix B

Drillhole Record

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH01**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 825 589.49 N 841 272.15	DATE from 28/11/2022 to 29/11/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.20 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
28/11/2022	PW			57						T2-101 0.00–0.35	+6.20	0.00			
										A 0.35–0.45	+5.85	0.35			Dark grey, angular COBBLE with coarse gravel of concrete. (FILL)
										B 0.45–0.95	+5.70	0.50			Pale yellow (2.5Y 7/3), silty medium to coarse SAND with some gravel of concrete. (FILL)
										C 0.95–1.45					Pale yellow (2.5Y 7/4), silty fine to medium SAND with some gravel of concrete. (FILL)
				89					68 bls	1 1.45–1.95					
				94						2 1.95–2.10	+4.10	2.10			
										T2-101 2.10–2.26	+3.94	2.26			Grey, angular COBBLE of concrete. (FILL)
										2.26–3.00					Dense, dark reddish brown (2.5YR, 3/3), silty fine to medium SAND with much angular gravel of moderately weak metasandstone. (FILL)
				89					81 bls	3 3.00–3.45					
										4 3.45–3.50					
28/11/2022										3.50–6.00					
29/11/2022				67					35 bls	5 6.00–6.45	+0.20	6.00			Stiff, dark grey (N4), silty CLAY with wasted tyre. (MARINE DEPOSIT)
										6 6.45–6.50					
	10.00 PW									6.50–	-3.80	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
30/11/2022

CHECKED BY
TED YIP

DATE
01/12/2022

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH01**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 825 589.49 N 841 272.15	DATE from 28/11/2022 to 29/11/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.20 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
	HW			89					25 blS	7 10.00 8 10.45 10.50	-3.80	10.00			Stiff, reddish yellow (5YR 7/8) mottled white, silty CLAY. (ALLUVIUM)
				67					58 blS	9 15.00 10 15.45 15.50	-8.80	15.00			Stiff, reddish yellow (5YR 7/8), slightly sandy clayey SILT. (ALLUVIUM)
											-13.80	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
30/11/2022

CHECKED BY
TED YIP

DATE
01/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH01**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 825 589.49 N 841 272.15	DATE from 28/11/2022 to 29/11/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.20 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				33					228 bls	20.00 11 12 20.45 20.50		20.00			Weak, brownish yellow (10YR 6/8), highly decomposed coarse ash crystal TUFF. (Sandy GRAVEL in a matrix of silty sand)
				78					133 bls	25.00 13 14 25.45 25.50				IV	
											-23.80	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 30/11/2022

CHECKED BY TED YIP

DATE 01/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH01**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 825 589.49 N 841 272.15	DATE from 28/11/2022 to 29/11/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.20 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/11/2022	30.45 HW			75					202 bls	30.00 15 16 30.40 30.45	-24.25	30.45		V	Extremely weak, brownish yellow (10YR 6/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) End of drillhole at 30.45m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

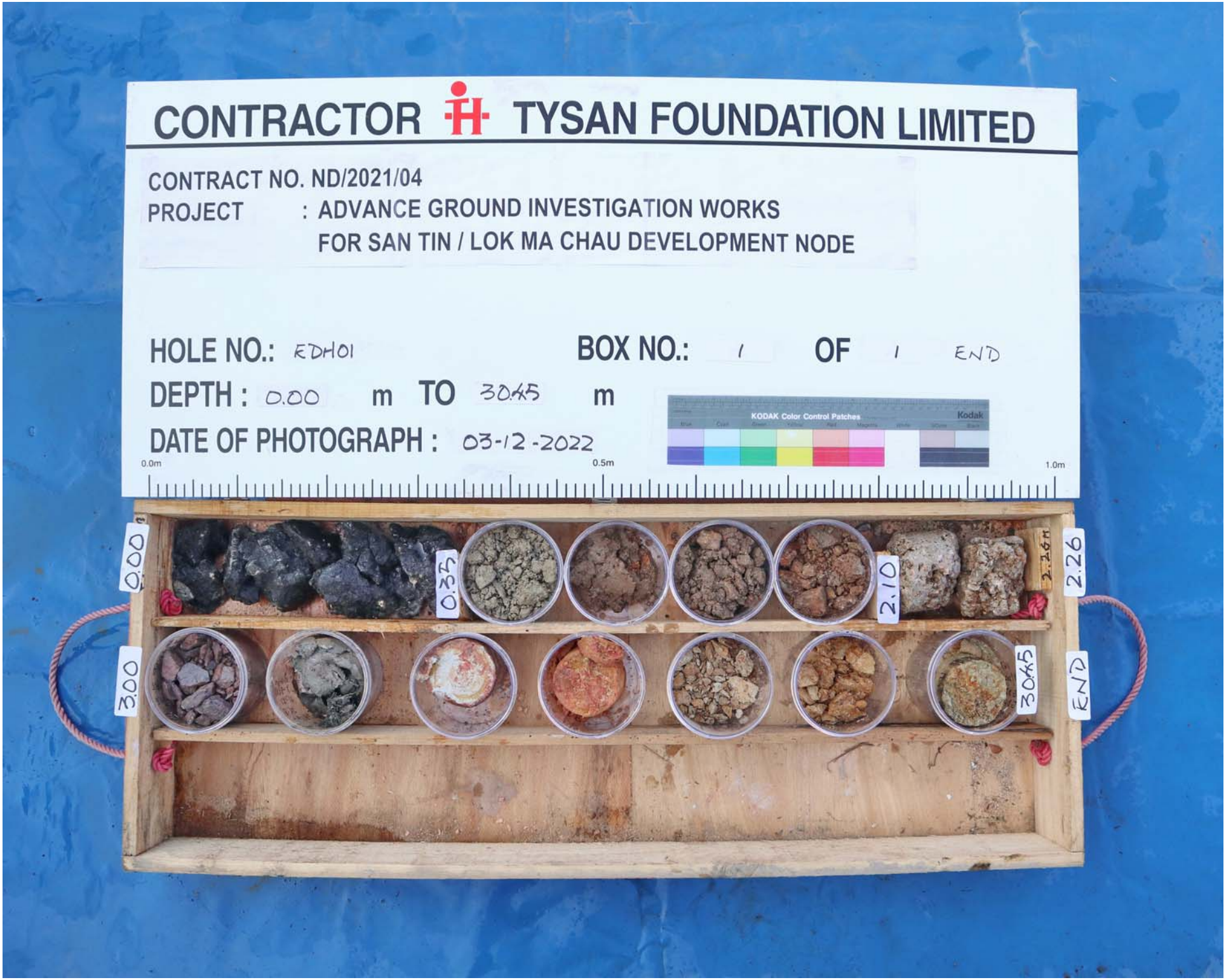
LOGGED BY
BARRY YIU

DATE
30/11/2022

CHECKED BY
TED YIP

DATE
01/12/2022

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH01
BOX NO.: 1 OF 1 END
DEPTH : 0.00 m TO 30.45 m
DATE OF PHOTOGRAPH : 03-12-2022
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
0.35
2.10
2.26m
2.26
3.00
30.45
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH02**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E :825922.59 N: 840783.60	DATE from 29/12/2022 to 06/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.13 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/12/2022	PW										+6.13	0.00			Brown (10YR 5/3), silty SAND with some angular gravel of concrete. (FILL)
		Dry at 18:00								A 0.45 0.50 INSPECTION PIT B 0.95 1.00 C 1.45 1.50					
29/12/2022										D 1.95 2.00	+4.13	2.00			
30/12/2022		Dry at 08:00													Brown (10YR 5/3), sandy clayey SILT with some fine to medium gravel of concrete. (FILL)
				67					58 bls	1 3.00 2 3.45 3.50					
											+0.13	6.00			Soft, dark grey (10YR 4/1), silty CLAY. (MARINE DEPOSIT)
				60					21 bls	3 6.00 4 6.45 6.50					
	10.00 PW										-3.87	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
08/01/2023

CHECKED BY
TED YIP

DATE
09/01/2023

REMARKS
1. Inspection pit excavated from 0.00m-2.00m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH02**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E :825922.59 N: 840783.60	DATE from 29/12/2022 to 06/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.13 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
	HW			100					81 blis	5 6	10.00 10.45 10.50	-3.87 10.00		V	Extremely weak, light reddish brown (5YR 6/4), completely decomposed meta-SILTSTONE. (Very stiff, sandy SILT)
				60	0	0	NA	11.50 12.00	T2-101		11.50 12.00	-5.37 11.50 -5.87 12.00		IV	Moderately weak, light reddish brown, highly decomposed meta-SILTSTONE. (Sandy GRAVEL with boulder of quartz)
															Extremely weak, light reddish brown (5YR 6/4), completely decomposed meta-SILTSTONE. (Very stiff, sandy SILT)
30/12/2022		3.58m at 18:00													
31/12/2022		6.00m at 08:00		60					172 blis	7 8	15.00 15.45 15.50			V	
				60	0	0	NA NR	18.20 18.50 18.70	T2-101		18.20 18.70	-12.07 18.20 -12.37 18.50 -12.57 18.70		IV V	Moderately weak, light reddish brown to light grey, highly decomposed meta-SILTSTONE. (Sandy GRAVEL) 18.50- 18.70m: No recovery, assumed to be completely decomposed meta-SILTSTONE.
		3.71m										-13.87 20.00		V	Extremely weak, light brown (7.5YR 6/3), completely decomposed meta-SILTSTONE. (Very stiff, sandy SILT)

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 08/01/2023

CHECKED BY TED YIP

DATE 09/01/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH02**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E :825922.59 N: 840783.60	DATE from 29/12/2022 to 06/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.13 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
31/12/2022		at 18:00		0				20.20	226 bls	9	20.00 20.13 -14.07	20.20		V	As Sheet 4 of 4.
03/01/2023		12.50m at 08:00		90	30	0	NA	20.55		T2-101	20.16 20.20 -14.42	20.55		IV	Moderately weak, light yellowish brown, highly decomposed meta-SANDSTONE. (Sandy GRAVEL with some cobble)
							13.3	20.70			-14.57	20.70		III	
				53	0	0	NA	21.10		T2-101	20.70 -14.97	21.10		IV	20.55- 20.70m: Moderately strong, moderately decomposed.
							NR	21.46			21.46 -15.33	21.46		V	21.10- 21.46m: No recovery, assumed to be completely decomposed meta-SILTSTONE.
	22.30 HW							22.30						V	Wash boring, assumed to be completely decomposed meta-SILTSTONE.
				94	40	40				T2-101	22.30 -16.17	22.30			Moderately strong, light grey to grey, moderately decomposed meta-SILTSTONE. Joints are closely to medium, locally very closely spaced, smooth planar and undulating, extremely narrow, iron oxide stained, dipping at 10°-20°, 20°-30° and 40°-50°.
							5.5								
		3.72m at 18:00		100	96	96				T2-101	23.42			III	
03/01/2023															
05/01/2023		6.00m at 08:00		100	94	94	>20	25.08		T2-101	24.72				
							2.9	25.43							
							7.4	25.70			25.70 -19.57	25.70			
		3.40m at 18:00		100	32	16	NA	25.90		T2-101	-19.77	25.90		IV	25.70- 25.90m: Moderately weak, highly decomposed. (Sandy COBBLE)
05/01/2023											26.32				
06/01/2023		7.58m at 08:00					12.3							III	
				100	70	25	NA	26.96 27.18		T2-101	-20.83 -21.05	26.96 27.18		IV	26.96- 27.18m: Moderately weak, highly decomposed. (Sandy GRAVEL)
							16.7	27.66			27.66				
							8.0	27.91							
				97	90	76	5.0	28.31		T2-101					
							10.3	28.89			28.67			III	
				100	76	76	5.3	29.83		T2-101	29.57				
				100	85	69	10.1			T2-101	-23.87	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 08/01/2023

CHECKED BY TED YIP

DATE 09/01/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH02**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E :825922.59 N: 840783.60	DATE from 29/12/2022 to 06/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.13 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
06/01/2023		3.40m at 18:00		100	85	69	10.1	30.52		T2-101 30.52	-24.39	30.52		III	As Sheet 3 of 4. End of drillhole at 30.52m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

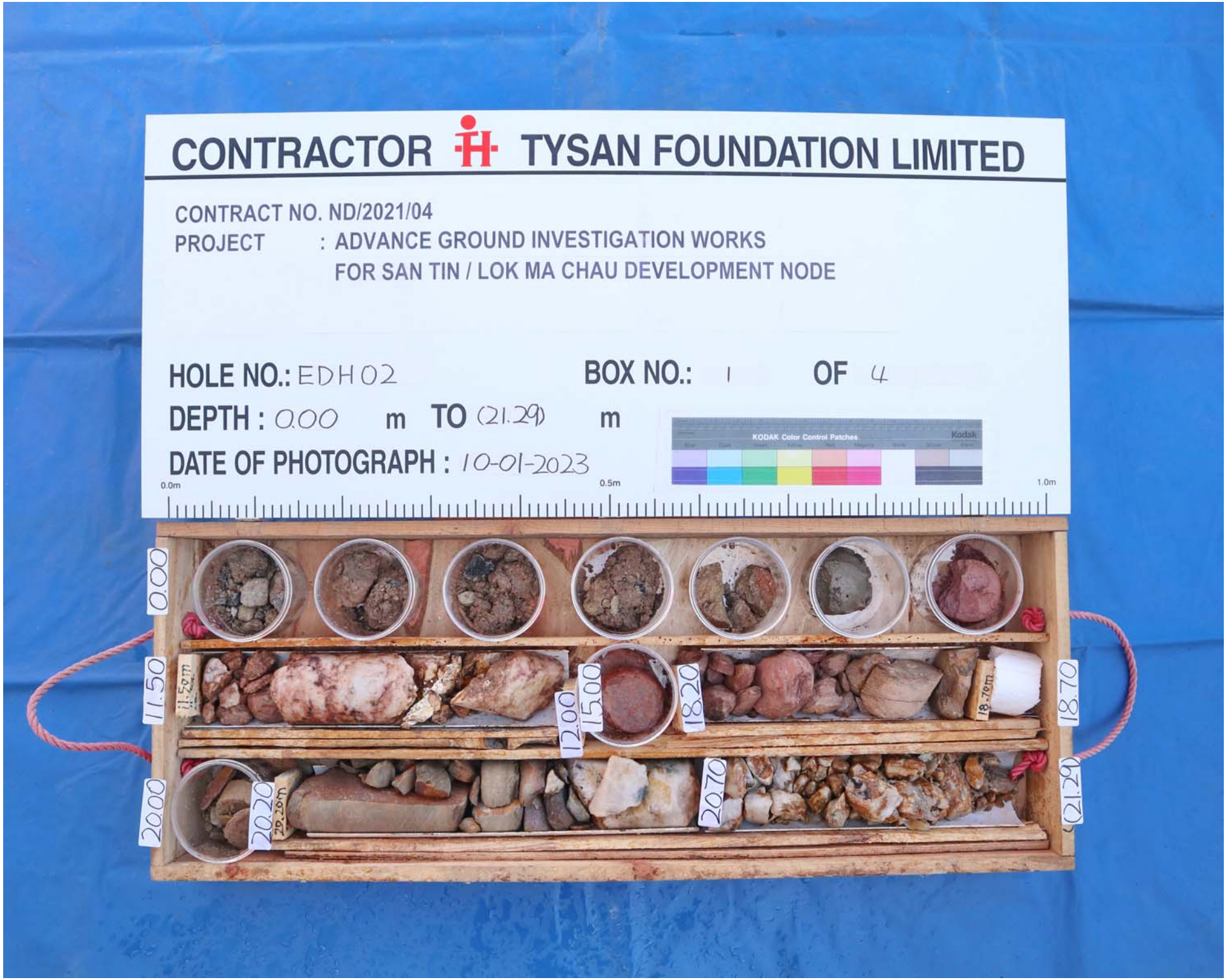
LOGGED BY BARRY YIU

DATE 08/01/2023

CHECKED BY TED YIP

DATE 09/01/2023

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH02
BOX NO.: 1 OF 4
DEPTH : 0.00 m TO (21.29) m
DATE OF PHOTOGRAPH : 10-01-2023
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
11.50
11.50m
12.00
15.00
18.20
18.70m
18.70
20.00
20.20
20.70m
20.70
(21.29)

CONTRACTOR TYSAN FOUNDATION LIMITED

CONTRACT NO. ND/2021/04

PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE

HOLE NO.: EDH02 **BOX NO.:** 2 **OF** 4

DEPTH : (21.29) m **TO** 24.72 m

DATE OF PHOTOGRAPH : 10-01-2023


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH02
BOX NO.: 3 OF 4
DEPTH : 24.72 m TO 27.66 m
DATE OF PHOTOGRAPH : 10-01-2023
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
24.72
25.70
26.32
27.66


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH02
BOX NO.: 4 OF 4 END
DEPTH : 27.66 m TO 30.52 m
DATE OF PHOTOGRAPH : 10-01-2023
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
27.66
28.67
29.57
END
30.52

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH03**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-23	E 826 039.95 N 840 405.06	DATE from 11/01/2023 to 13/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.32 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
11/01/2023	SW										+4.32	0.00			
											+4.22	0.10			CONCRETE.
										INSPECTION PIT A 0.45 0.50					Dark yellowish brown (10YR 4/4), sandy SILT with some angular to subangular gravel of concrete fragments. (FILL)
										B 0.95 1.00					
										C 1.45 1.50	+2.82	1.50			Yellow (10YR 7/4), silty CLAY. (ALLUVIUM)
	2.00 SW			100					13 bls	1					
	PW									2 1.95 2.00					
										3.00					
				89					9 bls	3					
										4 3.45 3.50					
11/01/2023										6.00					
12/01/2023				100					15 bls	5					
										6 6.45 6.50					
	10.00 PW										-5.68	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
14/01/2023

CHECKED BY
TED YIP

DATE
15/01/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH03**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-23	E 826 039.95 N 840 405.06	DATE from 11/01/2023 to 13/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.32 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
	HW			100					21 blS	7 10.00 8 10.45 10.50	-5.68	10.00			As Sheet 1 of 4.
				56					69 blS	9 15.00 10 15.45 15.50	-10.68	15.00		V	Extremely weak, brownish yellow (10YR 6/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy SILT)
											-15.68	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 14/01/2023

CHECKED BY TED YIP

DATE 15/01/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH03**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-23	E 826 039.95 N 840 405.06	DATE from 11/01/2023 to 13/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.32 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
12/01/2023 13/01/2023				100					39 bls	11 12 20.00 20.45 20.50	-15.68	20.00			As Sheet 2 of 4.
				56					126 bls	13 14 25.00 25.45 25.50	-25.68	30.00		V	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 14/01/2023

CHECKED BY TED YIP

DATE 15/01/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH03**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-23	E 826 039.95 N 840 405.06	DATE from 11/01/2023 to 13/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.32 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
										30.00					As Sheet 2 of 4.
13/01/2023	30.50 HW			100					36 bls	15 16 30.40 30.45	-26.18	30.50		V	End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 14/01/2023

CHECKED BY TED YIP

DATE 15/01/2023

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH03
BOX NO.: 1 OF 1 END
DEPTH : 0.00 m TO 30.50 m
DATE OF PHOTOGRAPH : 16-01-2023
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
0.10
30.50
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH04**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 670.74 N 840 427.77	DATE from 26/08/2022 to 29/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
26/08/2022	PW										+6.09	0.00			
											+5.89	0.20			ASPHALT.
										INSPECTION PIT A 0.45 0.50 0.55					Dark grey (N4), angular to subangular medium to coarse GRAVEL sized asphalt and concrete fragments. (FILL)
				93						T2-101	+5.54	0.55			Dark grey (N4) dappled red, angular COBBLE with some coarse gravel sized tuff. (FILL)
										1.25	+4.84	1.25			Firm, black (N2.5) dappled yellow, sandy clayey SILT with occasional subrounded fine gravel. (FILL)
				100					13 bls	1.50 1 2 1.95 2.00					
				100					12 bls	3.00 3 4 3.45 3.50					
26/08/2022		1.50m at 18:00		100					17 bls	6.00 5 6 6.45 6.50					
27/08/2022		1.80m at 08:00													
	10.00 PW										-3.91	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
06/09/2022

CHECKED BY
TED YIP

DATE
07/09/2022

REMARKS
1. Inspection pit excavated from 0.00m-0.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH04**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 670.74 N 840 427.77	DATE from 26/08/2022 to 29/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
27/08/2022 29/08/2022	HW	1.50m at 18:00 1.90m at 08:00		100					181 bls	7 10.00 8 10.45 10.50	-3.91	10.00			Pale brown (10YR 6/5), medium to coarse SAND with some subangular fine gravel sized quartz. (ALLUVIUM)
				100					151 bls	9 15.00 10 15.45 15.50	-8.91	15.00		V	Extremely weak, light grey (N7) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT)
											-13.91	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 06/09/2022

CHECKED BY TED YIP

DATE 07/09/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH04**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 670.74 N 840 427.77	DATE from 26/08/2022 to 29/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					98 bls	11 20.00 12 20.45 20.50				V	Extremely weak, grey (N6), completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT)
				100					171 bls	13 25.00 14 25.45 25.50	-19.41	25.50			
	30.09	1.60m at									-23.91	30.00		V	Extremely weak, dark grey (N4), completely decomposed coarse ash crystal TUFF. (Stiff, SILT)

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 06/09/2022

CHECKED BY TED YIP

DATE 07/09/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH04**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 670.74 N 840 427.77	DATE from 26/08/2022 to 29/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/08/2022	HW	18:00		0					200 bls	15 30.00 30.04 30.09	-24.00	30.09			As Sheet 3 of 4. End of drillhole at 30.09m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

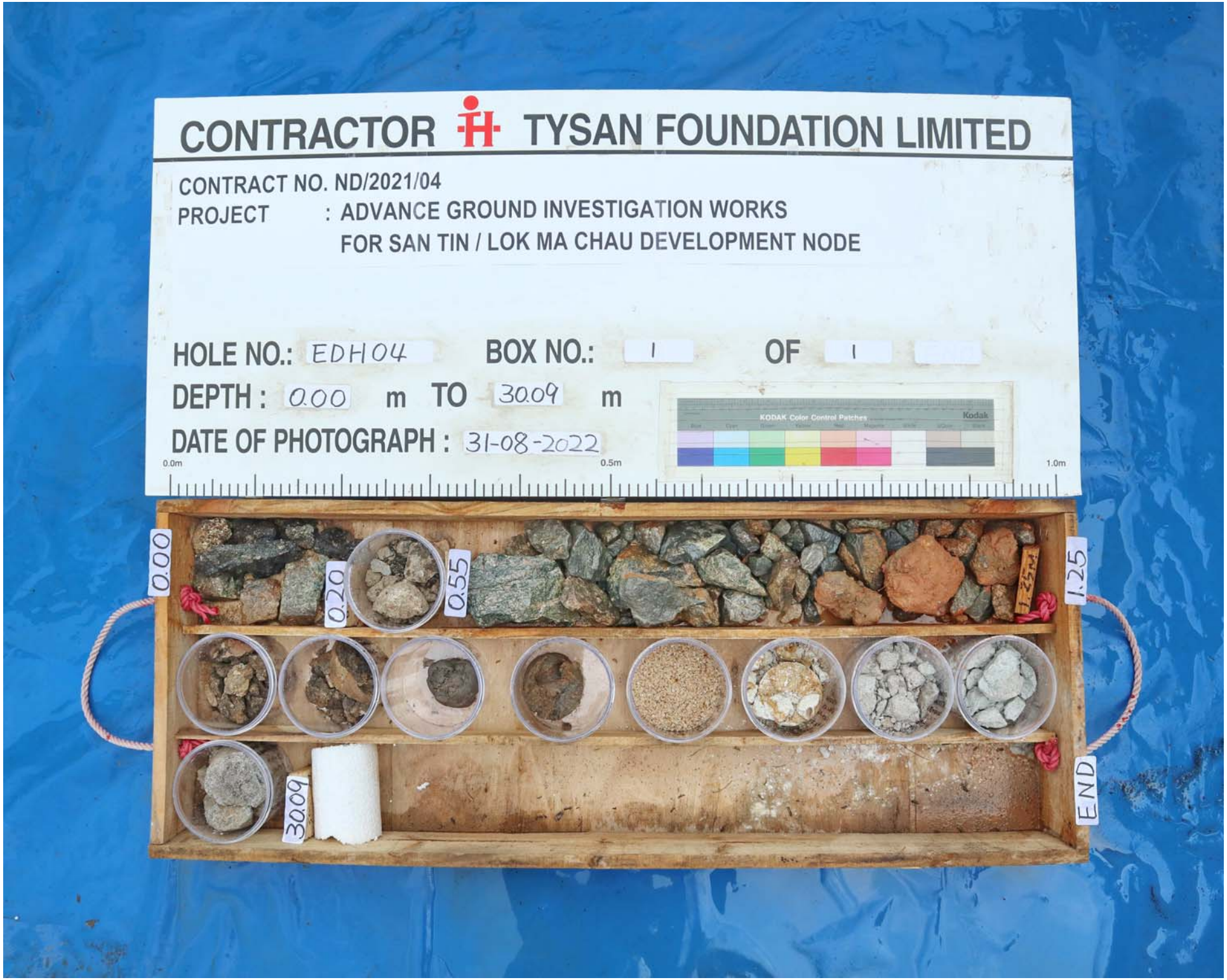
LOGGED BY
BARRY YIU

DATE
06/09/2022

CHECKED BY
TED YIP

DATE
07/09/2022

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH04
BOX NO.: 1
OF 1
DEPTH : 0.00 m TO 30.09 m
DATE OF PHOTOGRAPH : 31-08-2022
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
0.20
0.55
1.25
1.25m
30.09
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH05**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-16	E 826 890.48 N 840 510.25	DATE from 16/08/2022 to 18/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.55 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
16/08/2022	PW									INSPECTION PIT A 0.45 0.50	+4.55	0.00			Reddish brown (5YR 5/4), sandy clayey SILT with some rootlets. (FILL)
										B 0.95 1.00					
										C 1.45 1.50	+3.05	1.50			Yellowish brown (10YR 5/4), sandy clayey SILT with some rootlets. (FILL)
				100					15 bls	1					
										2 1.95 2.00					
										3.00	+1.55	3.00			Light grey (N7), subrounded medium to coarse GRAVEL sized quartz. (ALLUVIUM)
				56					59 bls	3					
		0.20m at 18:00								4 3.45 3.50					
16/08/2022										6.00	-1.45	6.00			
17/08/2022		0.58m at 08:00		44					127 bls	5				V	Extremely weak, yellowish brown, completely decomposed coarse ash crystal TUFF. (Very stiff, sandy slightly clayey SILT)
	7.00 PW HW									6 6.45 6.50					
											-5.45	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/08/2022

CHECKED BY
TED YIP

DATE
20/08/2022

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH05**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-16	E 826 890.48 N 840 510.25	DATE from 16/08/2022 to 18/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.55 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				78					32 blS	7 10.00 8 10.45 10.50	-5.45	10.00		V	Extremely weak, light grey, completely decomposed META-TUFF. (Very stiff, slightly sandy clayey SILT)
				89					29 blS	9 15.00 10 15.45 15.50	-10.45	15.00		V	Extremely weak, grey spotted white, completely decomposed META-TUFF. (Very stiff, slightly sandy clayey SILT)
17/08/2022		0.10m at 18:00									-15.45	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/08/2022

CHECKED BY TED YIP

DATE 20/08/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH05**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-16	E 826 890.48 N 840 510.25	DATE from 16/08/2022 to 18/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.55 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
18/08/2022		0.55m at 08:00		67					115 bls	11 20.00 12 20.45 14 20.50				V	Extremely weak, grey spotted white, completely decomposed META-TUFF. (Very stiff, slightly sandy clayey SILT)
											-15.45	20.00			
				44					196 bls	13 25.00 25.45	-20.45	25.00		V	Extremely weak, grey spotted white, completely decomposed META-TUFF. (Very stiff, slightly sandy clayey SILT)
											-25.45	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/08/2022

CHECKED BY TED YIP

DATE 20/08/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH05**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. DR-16	E 826 890.48 N 840 510.25	DATE from 16/08/2022 to 18/08/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.55 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
18/08/2022	30.50 HW	0.20m at 18:00		78					196 bls	30.00 15 16 30.45 30.50	-25.95	30.50		V	Extremely weak, grey spotted white, completely decomposed META-TUFF. (Very stiff, slightly sandy clayey SILT) End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/08/2022

CHECKED BY TED YIP

DATE 20/08/2022

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH 05
BOX NO.: 1
OF 1
END
DEPTH : 0.00 m TO 30.50 m
DATE OF PHOTOGRAPH : 19-08-2022
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
30.50
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH06**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 519.33 N 840 084.16	DATE from 09/12/2022 to 12/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
09/12/2022	PW									INSPECTION PIT A 0.45 0.50; B 0.95 1.00; C 1.45 1.50; D 1.95 2.00	+5.27	0.00			Yellowish red (5YR 5/6), silty fine SAND with much angular gravel of concrete and quartz. (FILL)
											+3.27	2.00			Stiff, yellowish red (5YR 5/6) mottled grey, sandy SILT with some fine to medium gravel of concrete. (FILL)
				100					25 bls	1 3.00; 2 3.45 3.50					
	6.00 PW HW										-0.73	6.00			
09/12/2022 10/12/2022				100					31 bls	3 6.00; 4 6.45 6.50					Dense, grey (5YR, 6/1), silty fine to medium SAND. (ALLUVIUM)
											-4.73	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 13/12/2022

CHECKED BY TED YIP

DATE 14/12/2022

REMARKS
1. Inspection pit excavated from 0.00m-2.00m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH06**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 519.33 N 840 084.16	DATE from 09/12/2022 to 12/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					40 blows	10.00 5 6 10.45 10.50	-4.73	10.00			Dense, grey (5YR, 6/1), silty medium to coarse SAND. (ALLUVIUM)
10/12/2022 12/12/2022				100					154 blows	15.00 7 8 15.45 15.50	-9.73 -14.73	15.00 20.00		V	Extremely weak, very pale brown (10YR 8/3) to light yellowish brown (10YR, 6/4), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 13/12/2022

CHECKED BY TED YIP

DATE 14/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH06**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 519.33 N 840 084.16	DATE from 09/12/2022 to 12/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					125 bls	9 20.00 10 20.45 20.50	-14.73	20.00			As Sheet 2 of 4.
				100					164 bls	11 25.00 12 25.45 25.50	-24.73	30.00		V	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 13/12/2022

CHECKED BY TED YIP

DATE 14/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH06**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 826 519.33 N 840 084.16	DATE from 09/12/2022 to 12/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
										30.00					As Sheet 2 of 4.
12/12/2022	30.50 HW			100					148 bls	13 14 30.45 30.50	-25.23	30.50		V	End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

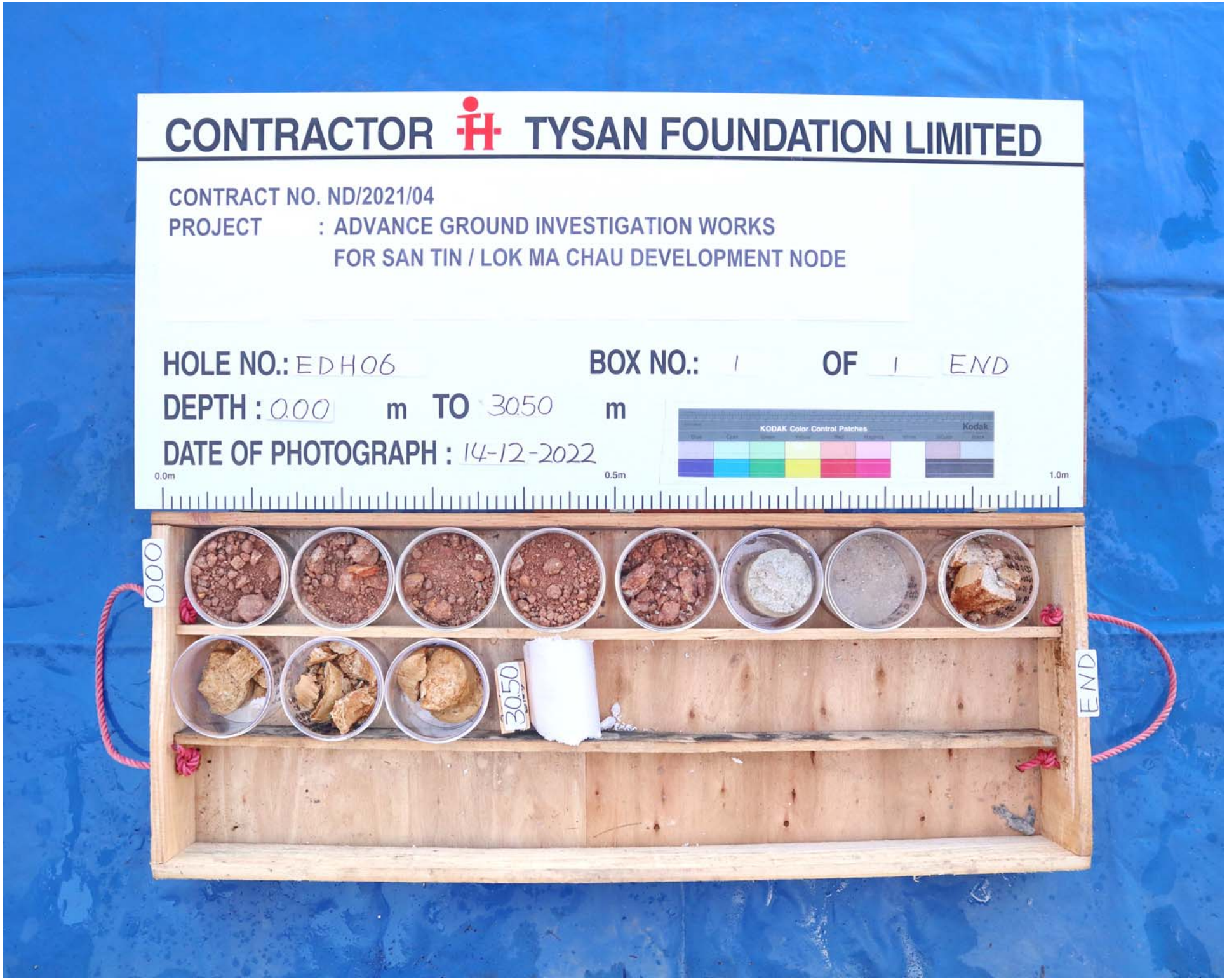
LOGGED BY BARRY YIU

DATE 13/12/2022

CHECKED BY TED YIP

DATE 14/12/2022

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH06
BOX NO.: 1 OF 1 END
DEPTH : 0.00 m TO 30.50 m
DATE OF PHOTOGRAPH : 14-12-2022
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
30.50
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH07**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 583.89 N 839 224.69	DATE from 05/12/2022 to 06/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.69 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
05/12/2022	SW									INSPECTION PIT A 0.45 0.50	+6.69	0.00			Light yellowish brown (10YR 6/4), silty fine SAND with much subangular to subrounded cobble and coarse gravel of concrete. (FILL)
										B 0.95 1.00					
				0						C 1.45 1.50	+5.19	1.50			Light brownish grey (10YR 6/2), sandy clayey SILT with some subangular cobble and gravel of concrete. (FILL)
										1 1.95 2.00					
										2.30	+4.39	2.30			Grey, angular COBBLE with some coarse gravel of concrete. (FILL)
				86						SW					
	3.00 SW									3.00	+3.69	3.00			Stiff, very pale brown (10YR 7/4), sandy SILT with some angular gravel of quart and concrete. (FILL)
	PW			100					33 bls	2 3 3.45 3.50					
	6.00 PW									6.00	+0.69	6.00			
	HW			100					29 bls	4 5 6.45 6.50				V	Extremely weak, reddish brown (7.5YR 6/6), completely decomposed meta-SILTSTONE. (Very stiff, sandy clayey SILT)
											-3.31	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH07**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 583.89 N 839 224.69	DATE from 05/12/2022 to 06/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.69 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					37 blls	10.00 6 7 10.45 10.50		10.00			As Sheet 1 of 4.
05/12/2022 06/12/2022				100					47 blls	15.00 8 9 15.45 15.50	-13.31	20.00		V	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH07**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 583.89 N 839 224.69	DATE from 05/12/2022 to 06/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.69 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					59 bls	20.00 10 11 20.45 20.50		20.00			As Sheet 1 of 4.
				100					63 bls	25.00 12 13 25.45 25.50				V	
											-23.31	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH07**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 583.89 N 839 224.69	DATE from 05/12/2022 to 06/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.69 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
06/12/2022	30.50 HW			100					115 bls	14 30.00 15 30.45 30.50	-23.81	30.50		V	As Sheet 1 of 4. End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH07
BOX NO.: 1 OF 1 END
DEPTH : 0.00 m TO 30.50 m
DATE OF PHOTOGRAPH : 08-12-2022
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
2.30
3.00
30.50
30.50m
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH08**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 108.33 N 839 149.16	DATE from 30/12/2022 to 02/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.77 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
30/12/2022	PW										+9.77	0.00			Pale yellow (2.5Y 7/4), sandy SILT with much angular fine to medium gravel of concrete. (FILL)
				0					45 blls	INSPECTION PIT A 0.45 0.50; B 0.95 1.00; C 1.45 1.50	+8.27	1.50			
											+7.97	1.80			Pale yellow (2.5Y 7/4) and light grey (2.5Y 7/1), sandy SILT with some angular cobble and gravel of concrete. (FILL)
				63						T2-101 1 1.75 1.80					Dark grey and pink spotted black and grey, angular COBBLE of concrete and strong granite. (FILL)
01/12/2022											+7.07	2.70			
30/12/2022	3.00 PW									2.70					Soft, pale yellow (2.5Y 8/3), silty CLAY. (FILL)
	HW			100					13 blls	2 3.00					
										3.45 3.50	+5.87	3.90			Dark grey and pink spotted black and grey, angular COBBLE of concrete, strong granite and tuff. (FILL)
				63						T2-101					
										4.70	+5.07	4.70			Extremely weak, reddish yellow (7.5YR 8/6), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
										6.00 4 5 6.45 6.50				V	
				100					21 blls						
										9.00	+0.77	9.00		IV	Moderately weak, yellowish brown, highly decomposed coarse ash crystal TUFF. (COBBLE with some gravel)
				60						T2-101 9.50	+0.27	9.50		V	Extremely weak, yellow (10YR 8/6) spotted white, completely decomposed coarse ash crystal TUFF.
											-0.23	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH08**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 108.33 N 839 149.16	DATE from 30/12/2022 to 02/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.77 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				0					250 bls	6 10.00 10.05 10.10	-0.23	10.00			(Stiff to very stiff, sandy clayey SILT)
				100					137 bls	7 15.00 8 15.45 15.50				V	
01/12/2022											-10.23	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH08**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 108.33 N 839 149.16	DATE from 30/12/2022 to 02/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.77 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
02/12/2022				100					198 bls	9 20.00 10 20.45 20.50		20.00			As Sheet 1 of 4.
				100					186 bls	11 25.00 12 25.45 25.50	-20.23	30.00		V	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/12/2022

CHECKED BY TED YIP

DATE 08/12/2022

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH08**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-1	E 825 108.33 N 839 149.16	DATE from 30/12/2022 to 02/12/2022
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.77 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
										30.00	-20.23	30.00			As Sheet 1 of 4.
02/12/2022	30.50 HW			100					199 bls	13 14 30.45 30.50	-20.73	30.50		V	End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/12/2022

CHECKED BY
TED YIP

DATE
08/12/2022

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH08
BOX NO.: 1
OF 1
END
DEPTH : 0.00 m TO 30.50 m
DATE OF PHOTOGRAPH : 03-12-2022
0.0m
0.5m
1.0m
KODAK Color Control Patches
Kodak
0.00
1.80
3.90
2.70
3.00
4.70
6.00
9.00
9.00m
9.50
10.00
30.50
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH09**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 824 565.53 N 838 771.69	DATE from 31/12/2022 to 04/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +21.49 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
31/12/2022	PW										+21.49	0.00			
										INSPECTION PIT A 0.45 0.50	+20.99	0.50			Light red (2.5R 7/8), sandy SILT with much subangular to subrounded fine to medium gravel of concrete. (FILL)
										INSPECTION PIT B 0.95 1.00					Light red (2.5R 6/8), slightly sandy clayey SILT with occasional angular fine to medium gravel of concrete. (FILL)
										INSPECTION PIT C 1.45 1.50					
				89					25 bls	1 3.00 2 3.45 3.50	+18.49	3.00			Extremely weak, red (2.5YR 5/8), completely decomposed slightly metamorphosed coarse ash crystal TUFF. (Very stiff, sandy clayey SILT)
31/12/2022 03/01/2023				67					37 bls	3 6.00 4 6.45 6.50				V	
											+11.49	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
05/01/2023

CHECKED BY
TED YIP

DATE
06/01/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH09**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 824 565.53 N 838 771.69	DATE from 31/12/2022 to 04/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +21.49 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					249 bls	5 10.00 6 10.25 10.30		10.00			Extremely weak, pale brown (10YR 6/3), completely decomposed slightly metamorphosed coarse ash crystal TUFF. (Very stiff, sandy clayey SILT)
	15.00 PW HW			78					282 bls	15.00 7 8 15.32 15.37				V	
											+1.49	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 05/01/2023

CHECKED BY TED YIP

DATE 06/01/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH09**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 824 565.53 N 838 771.69	DATE from 31/12/2022 to 04/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +21.49 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				91					236 bls	9 20.00 10 20.33 20.38		20.00			As Sheet 2 of 4.
03/01/2023														V	
04/01/2023				0					233 bls	25.00 11 25.15 25.20	-3.51	25.00			Weak, pale brown, highly decomposed slightly metamorphosed highly decomposed coarse ash crystal TUFF. (Sandy COBBLE with some gravel)
	30.11										-8.51	30.00		IV	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 05/01/2023

CHECKED BY TED YIP

DATE 06/01/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **EDH09**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. XY2B	E 824 565.53 N 838 771.69	DATE from 31/12/2022 to 04/01/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +21.49 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
04/01/2023	HW			0					200 blS	12 30.00 30.06 30.11	-8.51 **8.62**	30.00 **30.11**			As Sheet 3 of 4. End of drillhole at 30.11m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

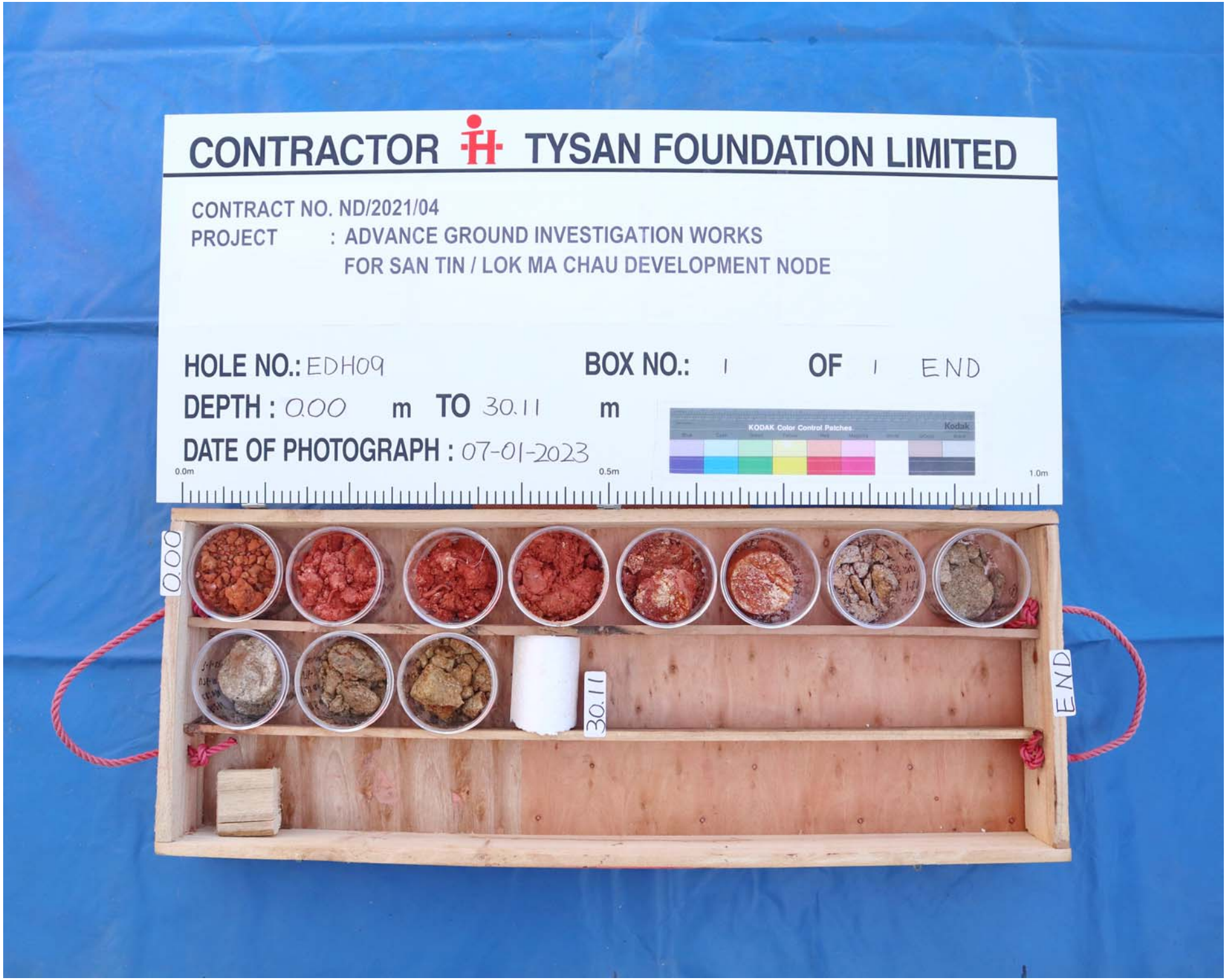
LOGGED BY
BARRY YIU

DATE
05/01/2023

CHECKED BY
TED YIP

DATE
06/01/2023

REMARKS


CONTRACTOR TYSAN FOUNDATION LIMITED
CONTRACT NO. ND/2021/04
PROJECT : ADVANCE GROUND INVESTIGATION WORKS
FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE
HOLE NO.: EDH09
BOX NO.: 1 OF 1 END
DEPTH : 0.00 m TO 30.11 m
DATE OF PHOTOGRAPH : 07-01-2023
KODAK Color Control Patches
Kodak
0.0m
0.5m
1.0m
0.00
30.11
END

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH01**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 155.00 N 841 121.65	DATE from 21/06/2023 to 30/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
21/06/2023	SW									INSPECTION PIT A 0.45 0.50	+8.27	0.00			Reddish brown (5YR 6/8) spotted black and white, sandy clayey SILT with some subangular fine to medium gravel sized rock fragments. (FILL)
										B 0.95 1.00					
21/06/2023		Dry at 18:00								C 1.45	+6.77	1.50			
28/06/2023		Dry at 08:00		78					19 bls	1 1.50					Stiff, yellowish red (5YR 5/8), sandy clayey SILT with some subrounded fine to medium gravel sized quartz. (ALLUVIUM)
										2 1.95	+6.27	2.00			Drilling without sampling.
	3.00 SW									2.00					
	PW			78					105 bls	3 3.00	+5.27	3.00			Stiff, yellowish red (5YR 5/8) spotted grey, sandy clayey SILT with some subangular and subrounded fine to medium gravel sized quartz. (ALLUVIUM)
										4 3.45 3.50	+4.77	3.50			Drilling without sampling.
				67					29 bls	5 6.00	+2.27	6.00		V	Extremely weak, red (10R 5/8), completely decomposed META-SILTSTONE. (Stiff, clayey SILT)
										6 6.45 6.50	+1.77	6.50			Drilling without sampling.
											-1.73	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

CHECKED BY
CESAR WONG

DATE
08/07/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH01**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 155.00 N 841 121.65	DATE from 21/06/2023 to 30/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				89					31 bls	7 8	-1.73 10.00 -2.23 10.45 10.50	10.00 10.50		V	Extremely weak, white (N8) spotted grey, completely decomposed META-SILTSTONE. (Stiff, slightly sandy clayey SILT) Drilling without sampling.
	15.00 PW HW			67					158 bls	9 10	-6.73 15.00 -7.23 15.45 15.50	15.00 15.50			Extremely weak, weak red (10R 5/4) dappled yellowish brown, completely decomposed META-SILTSTONE. (Stiff, SILT) Drilling without sampling.
28/06/2023		2.00m at 18:00									-11.73	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/07/2023

CHECKED BY CESAR WONG

DATE 08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司 TYSAN FOUNDATION LIMITED (泰昇集團成員 A member of Tysan Group)	DRILLHOLE RECORD CONTRACT No. ND/2021/04	DRILLHOLE No. **AEDH01** SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES E 826 155.00 N 841 121.65	JOB No. J2202SF06
MACHINE / No. CCL-8		DATE from 21/06/2023 to 30/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/06/2023		2.40m at 08:00		100					239 bls	11 20.00 12 20.15 20.20	-11.73	20.00		V	Extremely weak, red (10R 5/8) spotted white, completely decomposed META-SILTSTONE. (Silty SAND)
											-12.23	20.50			Drilling without sampling.
	22.54 HW										-14.27	22.54			
							NI	22.54 22.60		22.54				III	Moderately strong, grey striped white, dappled yellowish brown and reddish brown, moderately decomposed META-SILTSTONE. Joints are very closely to closely locally medium spaced, rough and smooth planar, extremely narrow, iron oxide stained, dipping at 0°-10°, 10°-20°, 30°-40° and 50°-60°.
				100	88	61	6.3			T2-101					
							>20	23.40 23.61			-15.34	23.61		II	
							NA	23.69		23.76	-15.42	23.69		IV	23.61- 23.69m: Moderately weak, highly decomposed. (Silty COBBLE)
				100	90	29	4.8			T2-101					
								25.16		25.02				II	
				100	70	26	>20			T2-101					
							8.3	26.12 26.36		26.00	-18.10	26.37			
				100	77	32	>20			T2-101	-18.44	26.71			26.37- 26.89m: Strong, slightly decomposed.
											-18.62	26.89			
		2.20m at 18:00					NA	26.89 26.96			-18.69	26.96		IV	26.71- m: With some irregular quartz vein (1-2mm locally 20mm thick).
29/06/2023															
30/06/2023		2.30m at 08:00								27.48					26.89- 26.96m: Moderately weak, highly decomposed. (Silty COBBLE)
				100	84	28	>20			T2-101				III	
										28.54					
											-20.85	29.12			
				100	87	22	17.2	29.12		T2-101				II	29.12- 29.64m: Strong, slightly decomposed.
											-21.37	29.64		III	
										29.94	-21.73	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/07/2023

CHECKED BY CESAR WONG

DATE 08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH01**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 155.00 N 841 121.65	DATE from 21/06/2023 to 30/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.27 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
30/06/2023		2.10m at 18:00		100 100	21 21	21 21	>20	30.05 30.42		T2-101 T2-101 30.42	-22.15	30.42		III	As Sheet 3 of 4. End of drillhole at 30.42m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

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CESAR WONG

DATE
08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH03**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 331.91 N 840 695.80	DATE from 21/06/2023 to 26/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.61 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
21/06/2023	SW										+7.61	0.00			Reddish brown (5YR 5/4), sandy clayey SILT with some subangular fine to medium gravel sized rock fragments. (FILL)
		Dry at 18:00								INSPECTION PIT A 0.45 0.50 B 0.95 1.00 C 1.45					
21/06/2023											+6.11	1.50			
23/06/2023		Dry at 08:00		0					9 bls	1 1.95	+5.61	2.00			Soft, black (N2.5), clayey SILT. (ALLUVIUM)
															Drilling without sampling.
	3.00 SW									2.00					
	PW			100					12 bls	2 3 3.45	+4.61	3.00			Firm, grey (N5) dappled reddish brown, silty CLAY. (ALLUVIUM)
										3.50	+4.11	3.50			Drilling without sampling.
										6.00	+1.61	6.00			
				66					90 bls	4 5 6.45	+1.11	6.50		V	Extremely weak, red (10R 5/8) dappled brown and spotted white, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT)
										6.50					Drilling without sampling.
											-2.39	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

CHECKED BY
CESAR WONG

DATE
08/07/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH03**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 331.91 N 840 695.80	DATE from 21/06/2023 to 26/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.61 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				46					41 blS	6 10.00 7 10.45 10.50	-2.89 10.50	10.00		V	Extremely weak, red (10R 5/8) dappled brown and spotted white, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
23/06/2023 24/06/2023	15.00 PW HW	2.10m at 18:00 2.20m at 08:00		100					59 blS	8 15.00 9 15.45 15.50	-7.39 -7.89 15.50 -12.39	15.00 15.50 20.00		V	Extremely weak, yellowish red (5YR 5/8) dappled red, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/07/2023

CHECKED BY CESAR WONG

DATE 08/07/2023

REMARKS

PRELIMINARY

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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH03**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 331.91 N 840 695.80	DATE from 21/06/2023 to 26/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.61 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				78					112 bls	10 11 20.45 20.50	20.00 -12.89	20.00 20.50		V	Extremely weak, yellowish brown (5YR 5/8) dappled brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy SILT) Drilling without sampling.
				100					94 bls	12 13 25.45 25.50	25.00 -17.39 -17.89	25.00 25.50		V	Extremely weak, yellowish red (5YR 5/8) spotted white, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
24/06/2023		2.00m at 18:00									-22.39	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 07/07/2023

CHECKED BY CESAR WONG

DATE 08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH03**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 331.91 N 840 695.80	DATE from 21/06/2023 to 26/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.61 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
26/06/2023 26/06/2023	30.25 HW	2.50m at 08:00		100					200 bls	14 30.00 15 30.20 30.25	-22.64	30.25		IV	Weak, grey, highly decomposed coarse ash crystal TUFF. (Fine to coarse GRAVEL) End of drillhole at 30.25m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

CHECKED BY
CESAR WONG

DATE
08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH10**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 446.63 N 839 924.78	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/05/2023	HW										+6.46	0.00			
										INSPECTION PIT A 0.45 0.50	+5.96	0.50			Black (N2.5), silty SAND with some subangular fine to coarse gravel sized asphalt fragments. (FILL)
										B 0.95 1.00					Yellowish red (5YR 5/8), sandy SILT with some subangular fine to medium gravel sized asphalt fragments. (FILL)
				67					32 bls	C 1.45 1.50 1 2 1.95 2.00	+4.96 +4.51	1.50 1.95			Firm, yellowish red (5YR 5/8) dappled white and yellow, sandy SILT with some angular to subangular fine to coarse gravel sized moderately strong tuff and quartz. (FILL) Drilling without sampling.
				89					33 bls	3 4 3.00 3.45 3.50	+3.46 +2.96	3.00 3.50			Firm, red (10R 5/8) spotted white, sandy clayey SILT with some subangular and subrounded medium to coarse gravel sized quartz. (ALLUVIUM) Drilling without sampling.
				67					65 bls	5 6 6.00 6.45 6.50	+0.46 -0.04	6.00 6.50			Dark grey (N4), sandy subangular and subrounded medium to coarse GRAVEL sized quartz. (ALLUVIUM) Drilling without sampling.
											-3.54	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH10**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 446.63 N 839 924.78	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				67					21 blls	7 10.00 8 10.45 10.50	-3.54 -4.04	10.00 10.50		V	Extremely weak, reddish yellow (5YR 6/8) striped dark grey, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
29/05/2023		2.60m at 18:00									-8.54	15.00			
30/05/2023		2.70m at 08:00		100					46 blls	9 15.00 10 15.45 15.50	-9.04 -13.54	15.50 20.00		V	Extremely weak, pale brown (10YR 6/3) dappled yellowish brown and striped dark brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH10**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 446.63 N 839 924.78	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				89					61 blis	11 12	20.00 20.45 20.50 -13.54 -14.04	20.00 20.50		V	Extremely weak, yellowish brown (10YR 5/4), completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
				100					100 blis	13 14	25.00 25.45 25.50 -18.54 -19.04	25.00 25.50		V	Extremely weak, light brownish grey (10YR 6/2), completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
				83	0	0	NA	25.90 26.20	T2-101		25.90 26.20 -19.44 -19.74	25.90 26.20		IV	Moderately weak, pale brown (10YR 6/3), highly decomposed coarse ash crystal TUFF with quartz vein. (COBBLE with some coarse gravel) Drilling without sampling.
											-23.54	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH10**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 446.63 N 839 924.78	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
30/05/2023	30.50 HW	2.30m at 18:00		100					107 bls	30.00 15 16 30.45 30.50	-24.04	30.50		V	Extremely weak, brown (10YR 5/3), completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH11**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 352.98 N 839 820.92	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/05/2023	HW										+8.09	0.00			Firm, dark yellowish brown (10YR 4/4), sandy clayey SILT. (FILL)
										INSPECTION PIT A 0.45–0.50; B 0.95–1.00; C 1.45					
				100					31 blS	1 1.50–1.95; 2 1.95–2.00	+6.59	1.50			Stiff, yellowish red (5YR 5/8) dappled red and light grey, sandy clayey SILT with some subangular fine gravel sized quartz. (ALLUVIUM)
											+6.14	1.95			Drilling without sampling.
				100					30 blS	3 3.00–3.45; 4 3.45–3.50	+5.09	3.00			Stiff, light grey (N7) dappled dark red, clayey SILT. (ALLUVIUM)
											+4.59	3.50			Drilling without sampling.
				100					40 blS	5 6.00–6.45; 6 6.45–6.50	+2.09	6.00		V	Extremely weak, yellowish red (5YR 5/8) dappled red, completely decomposed coarse ash crystal TUFF. (Stiff, slightly sandy clayey SILT)
											+1.59	6.50			Drilling without sampling.
											-1.91	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH11**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 352.98 N 839 820.92	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					39 bls	7 10.00 8 10.45 10.50	-1.91 -2.41	10.00 10.50		V	Extremely weak, light grey (N7) striped brown, completely decomposed coarse ash crystal TUFF. (Stiff, slightly sandy clayey SILT) Drilling without sampling.
				100					94 bls	9 15.00 10 15.45 15.50	-6.91 -7.41	15.00 15.50		V	Extremely weak, reddish brown (5YR 5/4), completely decomposed coarse ash crystal TUFF. (Stiff, sandy SILT with some fine gravel) Drilling without sampling.
											-11.91	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司 TYSAN FOUNDATION LIMITED (泰昇集團成員 A member of Tysan Group)	DRILLHOLE RECORD CONTRACT No. ND/2021/04	DRILLHOLE No. **AEDH11** SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES E 826 352.98 N 839 820.92	JOB No. J2202SF06
MACHINE / No. CCL-2		DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29/05/2023		2.20m at 18:00		100					109 bls	11 20.00 12 20.45	-11.91 -12.41	20.00 20.50		V	Extremely weak, light grey (N7) dappled reddish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy SILT)
30/05/2023		4.80m at 08:00													Drilling without sampling.
				100	0	0	NI	24.50		T2-101 24.50	-16.41	24.50		II	Strong, white dappled yellowish brown, slightly decomposed QUARTZ VEIN. Rock is non-intact.
								25.00		13 25.00	-16.91	25.00		IV	
								25.05		25.05	-16.96	25.05			Weak, white (N8) dappled yellowish brown, highly decomposed QUARTZ VEIN. (Fine to medium GRAVEL)
				64	0	0	NI			T2-101	-17.31	25.40		II	
							NR	25.40			-17.51	25.60		V	
				100	0	0	NI	25.60		T2-101 25.60				II	Strong, light grey dappled dark brown, slightly decomposed QUARTZ VEIN. Rock is non-intact.
								25.90		25.90	-17.81	25.90			25.40- 25.60m: No recovery assumed to be completely decomposed TUFF.
		2.30m												V	Extremely weak, yellowish brown (10YR 5/4) spotted grey, completely decomposed coarse ash crystal TUFF. (Stiff, sandy SILT)

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH11**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 352.98 N 839 820.92	DATE from 29/05/2023 to 30/05/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +8.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
30/05/2023	30.30 HW	at 18:00		100					84 bls	14 30.00 15 30.25 30.30	-22.21	30.30		V	End of drillhole at 30.30m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH12**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 546.24 N 839 851.23	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.99 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
01/06/2023	SW	Dry at 18:00								INSPECTION PIT A 0.45 0.50; B 0.95 1.00; C 1.45 1.50	+5.99	0.00			Brown (10YR 5/3), sandy clayey SILT with some subangular fine to coarse gravel sized rock fragments. (FILL)
01/06/2023															
02/06/2023		Dry at 08:00		66					25 bls	1 1.95 2.00	+3.99	2.00			Drilling without sampling.
	3.00 SW										+2.99	3.00			
	PW			67					37 bls	3 3.00 4 3.45 3.50	+2.49	3.50			Brown (10YR 5/3), sandy subangular fine to coarse GRAVEL sized quartz. (ALLUVIUM)
															Drilling without sampling.
				78					48 bls	5 6.00 6 6.45 6.50	-0.01	6.00			Light grey (N7), sandy subangular fine GRAVEL sized quartz. (ALLUVIUM)
											-0.51	6.50			Drilling without sampling.
02/06/2023		2.60m at 18:00									-4.01	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH12**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 546.24 N 839 851.23	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.99 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
03/06/2023		2.30m at 08:00		44					82 blks	7 10.00 8 10.45 10.50	-4.01 -4.51	10.00 10.50		V	Extremely weak, red (5R 5/8) dappled brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
03/06/2023	15.00 PW	2.20m at 18:00									-9.01	15.00			
05/06/2023	HW	2.50m at 08:00		89					37 blks	9 15.00 10 15.45 15.50	-9.51 -14.01	15.50 20.00		V	Extremely weak, red (5R 5/8) dappled brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH12**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 546.24 N 839 851.23	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.99 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					44 blws	11 20.00 12 20.45 20.50	-14.01 -14.51	20.00 20.50		V	Extremely weak, red (5R 5/8) spotted white and striped brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
				89					66 blws	13 25.00 14 25.45 25.50	-19.01 -19.51	25.00 25.50		V	Extremely weak, reddish yellow (5YR 6/8) spotted yellow, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
											-24.01	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH12**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 546.24 N 839 851.23	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +5.99 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
05/06/2023	30.50 HW	2.30m at 18:00		89					98 blS	15 30.00 16 30.25 30.30	-24.51	30.50		V	Extremely weak, yellowish brown (10YR 5/8) striped dark brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH13**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 652.95 N 839 700.87	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
01/06/2023	PW									INSPECTION PIT A 0.45 0.50	+6.46	0.00			Dark greyish brown (10YR 4/2), sandy SILT with some subangular fine gravel and rootlets. (FILL)
										B 0.95 1.00					
										C 1.45	+4.96	1.50			
				100					17 bls	1 1.50					Stiff, light grey (N7) dappled yellowish brown, slightly sandy clayey SILT. (ALLUVIUM)
										2 1.95	+4.46	2.00			
										2.00					Drilling without sampling.
										3.00	+3.46	3.00			
				100					16 bls	3					Reddish yellow (5YR 6/8), sandy subangular medium to coarse GRAVEL sized moderately strong to strong quartz. (ALLUVIUM)
										4 3.45	+2.96	3.50			
										3.50					Drilling without sampling.
	6.00 PW														
	HW									6.00	+0.46	6.00		V	
				100					49 bls	5					Extremely weak, light grey (N7) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
										6 6.45	-0.04	6.50			
										6.50					Drilling without sampling.
01/06/2023		1.80m at 18:00									-3.54	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH13**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 652.95 N 839 700.87	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
02/06/2023		3.20m at 08:00		100					46 bls	7 10.00 8 10.45 10.50	-3.54 -4.04	10.00 10.50		V	Extremely weak, dark yellowish brown (10YR 4/4) spotted white, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
				100					61 bls	9 15.00 10 15.45 15.50	-8.54 -9.04	15.00 15.50		V	Extremely weak, dark yellowish brown (10YR 4/4) spotted white, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
02/06/2023		2.20m at 18:00									-13.54	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH13**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 652.95 N 839 700.87	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
05/06/2023		3.10m at 08:00		100					112 bls	11 20.00 12 20.45 20.50	-13.54 -14.04	20.00 20.50		V	Extremely weak, yellowish brown (10YR 5/4) spotted grey, completely decomposed coarse ash crystal TUFF. (Stiff, slightly sandy clayey SILT) Drilling without sampling.
				100					81 bls	13 25.00 14 25.45 25.50	-18.54 -19.04	25.00 25.50		V	Extremely weak, brown (10YR 5/3) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
		2.10m									-23.54	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH13**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-2	E 826 652.95 N 839 700.87	DATE from 01/06/2023 to 05/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.46 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
05/06/2023	30.30 HW	at 18:00		100					110 bls	15 30.00 16 30.25 30.30	-23.84	30.30		V	Extremely weak, brown (10YR 5/3) dappled white, completely decomposed coarse ash crystal TUFF with quartz vein. (Stiff, clayey SILT with some cobble) End of drillhole at 30.30m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH14**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 598.96 N 839 467.58	DATE from 09/06/2023 to 12/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.01 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
09/06/2023	SW										+9.01	0.00			
										A 0.45 / 0.50	+8.51	0.50			Firm, yellowish brown (10YR 5/8), sandy clayey SILT with some subangular medium to coarse gravel sized quartz. (FILL)
										B 0.95 / 1.00					Firm, greyish brown (10YR 5/2), sandy clayey SILT with some subangular fine to coarse gravel sized moderately strong tuff. (FILL)
				78					7 bls	C 1.45 / 1.50	+7.51	1.50			Firm, dark grey (N4) dappled yellowish brown, sandy clayey SILT with decayed wood fragments and odour. (FILL)
										1 1.95 / 2.00	+7.01	2.00			Drilling without sampling.
	3.00 SW														
	PW			0					18 bls	3 3.00 / 3.45 / 3.50	+6.01 +5.51	3.00 3.50			Firm, yellowish brown (10YR 5/4), clayey SILT with some angular cobble sized strong granite. (FILL)
															Drilling without sampling.
				0					103 bls	4 6.00 / 6.45 / 6.50	+3.01 +2.51	6.00 6.50			Very dark grey (N3) dappled white, subangular coarse GRAVEL sized quartz and decayed wood fragments. (ALLUVIUM)
															Drilling without sampling.
09/06/2023	10.00 PW	1.50m at 18:00									-0.99	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH14**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 598.96 N 839 467.58	DATE from 09/06/2023 to 12/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.01 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
10/06/2023	HW	1.60m at 08:00		44					48 blls	5 10.00 6 10.45 10.50	-0.99 -1.49	10.00 10.50		V	Extremely weak, light grey (N7) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
10/06/2023		1.20m at 18:00									-5.99	15.00			
12/06/2023		1.50m at 08:00		78					63 blls	7 15.00 8 15.45 15.50	-6.49	15.50		V	Extremely weak, red (5R 5/8) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
											-10.99	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH14**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 598.96 N 839 467.58	DATE from 09/06/2023 to 12/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.01 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				89					57 blls	9 20.00 10 20.45 20.50	-10.99 -11.49	20.00 20.50		V	Extremely weak, reddish brown (5YR 5/4) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
				100					72 blls	11 25.00 12 25.05	-15.99 -16.49 -20.99	25.00 25.50 30.00		V	Extremely weak, red (5R 5/8) dappled yellow, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH14**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 598.96 N 839 467.58	DATE from 09/06/2023 to 12/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +9.01 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
12/06/2023	30.50 HW	1.10m at 18:00		100					93 bls	13 30.00 14 30.25 30.30	-21.49	30.50		V	Extremely weak, reddish brown (5YR 5/4) spotted grey, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司 TYSAN FOUNDATION LIMITED (泰昇集團成員 A member of Tysan Group)	DRILLHOLE RECORD CONTRACT No. ND/2021/04	DRILLHOLE No. **AEDH23** SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 374.82 N 839 461.36	DATE from 13/06/2023 to 19/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.75 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
13/06/2023	SW										+4.75	0.00			Red (10R 4/8), sandy clayey SILT with some subangular fine gravel and rootlets. (FILL)
										INSPECTION PIT; A 0.45-0.50; B 0.95-1.00					
13/06/2023		Dry at 18:00								C 1.45-1.50	+3.25	1.50			Reddish brown (5YR 5/4), sandy clayey SILT with some subangular fine gravel. (FILL)
16/06/2023		Dry at 08:00		89					18 bls	1, 2 (1.50-1.95-2.00)	+2.75	2.00			Drilling without sampling.
	3.00 SW										+1.75	3.00			Red (5R 5/8) dappled white, sandy clayey SILT. (ALLUVIUM)
	PW			89					30 bls	3, 4 (3.00-3.45-3.50)	+1.25	3.50			Drilling without sampling.
				56					66 bls	5, 6 (6.00-6.45-6.50)	-1.25	6.00		V	Extremely weak, yellowish red (5YR 5/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
											-1.75	6.50			Drilling without sampling.
											-5.25	10.00			

● Small Disturbed Sample	Standard Penetration Test
Large Disturbed Sample	Permeability Test
SPT Liner Sample	Impression Packer Test
U76 Undisturbed Sample	Borehole Televiewer Test
U100 Undisturbed Sample	Pressuremeter Test
Mazier Sample	Standpipe/Piezometer Tip
Piston Sample	In-situ Vane Shear Test
▲ Water Sample	Inclinometer Test

LOGGED BY BARRY YIU
DATE 19/06/2023
CHECKED BY CESAR WONG
DATE 20/06/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH23**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 374.82 N 839 461.36	DATE from 13/06/2023 to 19/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.75 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				89					95 bls	7 10.00 8 10.45 10.50	-5.75	10.00 10.50		V	Extremely weak, yellowish red (5YR 5/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
	15.00 PW HW			67					96 bls	9 15.00 10 15.45 15.50	-10.25 -10.75	15.00 15.50		V	Extremely weak, reddish yellow (5YR 6/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
16/06/2023		2.00m at 18:00									-15.25	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH23**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 374.82 N 839 461.36	DATE from 13/06/2023 to 19/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.75 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
17/06/2023		2.30m at 08:00		67					119 bls	11 12 20.00 20.45 20.50	-15.75	20.50		V	Extremely weak, yellowish red (5YR 5/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
				67					89 bls	13 14 25.00 25.45 25.50	-20.25 -20.75	25.00 25.50		V	Extremely weak, yellowish red (5YR 5/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT with some subangular fine gravel) Drilling without sampling.
17/06/2023		1.90m at 18:00									-25.25	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 19/06/2023

CHECKED BY CESAR WONG

DATE 20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH23**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 374.82 N 839 461.36	DATE from 13/06/2023 to 19/06/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +4.75 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
19/06/2023		2.40m at 08:00		67					188 bls	30.00 15 16 30.45 30.50					Extremely weak, reddish brown (5YR 5/4) dappled light grey, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
19/06/2023	30.50 HW										-25.75	30.50		V	End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
19/06/2023

CHECKED BY
CESAR WONG

DATE
20/06/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH24**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 005.63 N 839 475.83	DATE from 04/07/2023 to 06/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +10.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
04/07/2023	SW									INSPECTION PIT A 0.45 0.50	+10.09	0.00			Reddish brown (5YR 4/3), sandy clayey SILT with some subangular and subrounded fine to medium gravel sized moderately strong to strong tuff, quartz and rootlets. (FILL)
		Dry at 18:00								B 0.95 1.00					
04/07/2023										C 1.45	+8.59	1.50			
05/07/2023		Dry at 08:00		100					20 bls	1 1.50				V	Extremely weak, red (5R 5/8) dappled white and yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
										2 1.95 2.00	+8.09	2.00			Drilling without sampling.
	3.00 SW										+7.09	3.00			
	PW			100					19 bls	3 3.00				V	Extremely weak, red (5R 5/8) dappled white and yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
										4 3.45 3.50	+6.59	3.50			Drilling without sampling.
											+4.09	6.00			
				100					41 bls	5 6.00				V	Extremely weak, red (5R 5/8) spotted white and dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Very stiff, sandy clayey SILT)
										6 6.45 6.50	+3.59	6.50			Drilling without sampling.
											+0.09	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

CHECKED BY
CESAR WONG

DATE
08/07/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH24**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 005.63 N 839 475.83	DATE from 04/07/2023 to 06/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +10.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					225 bls	7 10.00 8 10.45	-0.41	10.50		V	Extremely weak, red (5R 5/8) spotted white and dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Very stiff, sandy SILT)
										10.50					Drilling without sampling.
	15.00 PW										-4.91	15.00			
	HW			100					200 bls	9 15.00 10 15.28	-5.24	15.33		V	Extremely weak, weak red (5R 5/4) spotted white and dappled yellowish brown, completely decomposed coarse ash crystal TUFF with quartz vein. (Very stiff, sandy SILT with some fine to medium gravel)
										15.33					Drilling without sampling.
								15.70			-5.61	15.70			
							NI	15.84							
				60	31	19	11.1	16.11		T2-101				III	Moderately strong, yellowish brown spotted white, moderately decomposed slightly metamorphosed coarse ash crystal TUFF. Rock is generally highly fractured.
							>20	16.34			-6.25	16.34			
							NR	16.50		16.50	-6.41	16.50		V	
															16.34- 16.50m: No recovery assumed to be completely decomposed TUFF.
															Drilling without sampling.
											-9.91	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

CHECKED BY
CESAR WONG

DATE
08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH24**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 005.63 N 839 475.83	DATE from 04/07/2023 to 06/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +10.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					83 bls	11 12	20.00 -9.91 20.45 -10.41 20.50	20.00 20.50		V	Extremely weak, yellowish brown (10YR 5/4) spotted white, completely decomposed coarse ash crystal TUFF. (Very stiff, sandy clayey SILT) Drilling without sampling.
05/07/2023		2.50m at 18:00													
06/07/2023		2.70m at 08:00		100					138 bls	13 14	25.00 -14.91 25.45 -15.41 25.50	25.00 25.50		V	Extremely weak, yellowish brown (10YR 5/4) spotted black, completely decomposed coarse ash crystal TUFF. (Very stiff, clayey SILT) Drilling without sampling.
				86	14	14	NA >20 NA NR	27.50 27.69 27.97 28.10 28.20		T2-101	27.50 -17.41 -17.60 -17.88 -18.01 -18.11 28.20 -19.91	27.50 27.69 27.97 28.10 28.20 30.00		IV III IV V	Moderately weak, yellowish brown (10YR 5/4) dappled black and spotted white, highly decomposed slightly metamorphosed coarse ash crystal TUFF. (COBLE with some coarse gravel) 27.69- 27.97m: Moderately strong, moderately decomposed. 28.10- 28.20m: No recovery assumed to be completely decomposed TUFF. Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
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DATE
08/07/2023

REMARKS

PRELIMINARY

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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH24**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 005.63 N 839 475.83	DATE from 04/07/2023 to 06/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +10.09 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD) -19.91	Depth (m) 30.00	Legend	Grade	Description
06/07/2023	30.50 HW	2.40m at 18:00		78					191 bls	30.00 15 16 30.45 30.50	-20.41	30.50		V	Extremely weak, white (N8) spotted yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT)As Sheet 3 of 4.
															End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
07/07/2023

CHECKED BY
CESAR WONG

DATE
08/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH25**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 902.48 N 839 272.77	DATE from 10/07/2023 to 24/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.35 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
10/07/2023	SW									INSPECTION PIT A 0.45 0.50	+6.35	0.00			Brown (10YR 5/3), sandy clayey SILT with some subangular fine to medium gravel sized rock fragments. (FILL)
		Dry at 18:00								B 0.95 1.00					
10/07/2023										C 1.45	+4.85	1.50			
19/07/2023		Dry at 08:00		100					19 bls	1 1.50 2 1.95	+4.35	2.00			Firm, white (N8) dappled yellowish brown striped black, slightly sandy clayey SILT with some rootlets. (ALLUVIUM)
										2.00					Drilling without sampling.
	3.00 SW									3.00	+3.35	3.00			
	PW			100					26 bls	3 3.45 4 3.50	+2.85	3.50		V	Extremely weak, yellowish red (5YR 5/8) dappled yellowish brown, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, clayey SILT)
															Drilling without sampling.
				100					58 bls	6.00 5 6 6.45 6.50	+0.35	6.00		V	Extremely weak, red (10R 4/8) spotted white, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, clayey SILT)
											-0.15	6.50			Drilling without sampling.
											-3.65	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
26/07/2023

CHECKED BY
CESAR WONG

DATE
27/07/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH25**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 902.48 N 839 272.77	DATE from 10/07/2023 to 24/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.35 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					38 bls	7 8	10.00 -3.65 10.45 -4.15 10.50	10.00 10.50		V	Extremely weak, red (10R 5/8) spotted brown, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
19/07/2023	15.00 PW	1.30m at 18:00													
20/07/2023	HW	1.50m at 08:00		100					48 bls	9 10	15.00 -8.65 15.45 -9.15 15.50	15.00 15.50		V	Extremely weak, brown (10YR 5/3) dappled yellowish red and dark brown, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
								16.78			16.78 -10.43	16.78			
				100	100	85	6.0 >20	17.45 17.58		T2-101	-11.13	17.48		II III	Strong, dark grey striped and spotted black and white, slightly decomposed slightly metamorphosed coarse ash crystal TUFF. Joints are closely to medium locally very closely spaced, rough and smooth planar, extremely narrow, iron oxide stained, dipping at 10°-20°, 20°-30°, 30°-40°, 50°-60° and 60°-70°.
							10.7	18.14			-11.54	17.89			17.48- 17.89m: Moderately strong, moderately decomposed.
				100	100	100	2.7			T2-101	18.14			II	
								19.33		T2-101					
20/07/2023		1.20m at 18:00		67	52	52	NR	19.61 19.75			19.75 -13.40 -13.65	19.75 20.00			Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH25**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 902.48 N 839 272.77	DATE from 10/07/2023 to 24/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.35 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
21/07/2023		1.60m at 08:00		100					78 blds	11	20.00			V	Extremely weak, dark grey (N4) spotted white, dappled reddish brown, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
								20.59		12	20.45 20.50 -14.24	20.59			
				100	100	95	3.4			T2-101	20.59			II	Strong, dark grey striped and spotted black and white, slightly decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. Joints are medium spaced, smooth planar, extremely narrow, iron oxide stained, dipping at 10°-20° and 40°-50°.
											22.09				
				88	41	34		22.85		T2-101	-16.30	22.65		IV	22.65- 23.31m: Moderately weak, highly decomposed. (Silty COBBLE with some medium to coarse gravel)
							NA				-16.96	23.31			
							NR	23.31			-17.12	23.47		V	
								23.47			23.47				23.31- 23.47m: No recovery assumed to be completely decomposed TUFF.
				79	0	0	NA			T2-101				IV	23.47- 24.65m: Moderately weak, highly decomposed. (Silty COBBLE with some medium to coarse gravel)
											-18.30	24.65			
							NR	24.65			-18.62	24.97		V	
								24.97			24.97 25.00				24.65- 24.97m: No recovery assumed to be completely decomposed TUFF.
		1.40m at 18:00		0					69 blds	13				IV	Weak, brown (10YR 5/3) dappled yellowish brown, highly decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Coarse GRAVEL with occasional cobble)
21/07/2023											-19.15	25.50			
22/07/2023		1.30m at 08:00									25.50				Drilling without sampling.
	27.48 HW										-21.13	27.48			
							>20	27.48			27.48			III	Strong, dark grey striped and spotted black and white, slightly decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. Joints are very closely to closely spaced, rough and smooth planar, extremely narrow, iron oxide stained, dipping at 20°-30°, 30°-40°, 50°-60°, 60°-70° and 70°-80°.
		1.00m at 18:00		100	60	39		27.72		T2-101	-21.53	27.88			27.48- 27.88m: Moderately strong, moderately decomposed.
22/07/2023											28.23			II	
24/07/2023		1.40m at 08:00					9.0				-22.29	28.64			
				100	79	79				T2-101	-22.50	28.85		III	
							>20	28.83 28.93			29.09				28.64- 28.85m: Moderately strong, moderately decomposed.
				100	93	75	6.7			T2-101				II	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH25**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 902.48 N 839 272.77	DATE from 10/07/2023 to 24/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +6.35 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD) -23.65	Depth (m) 30.00	Legend	Grade	Description
24/07/2023		1.20m at 18:00		100	93	75	6.7	30.43		T2-101 30.43	-24.08	30.43		II	End of drillhole at 30.43m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

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DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH26**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 058.66 N 839 311.79	DATE from 08/07/2023 to 11/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.53 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
08/07/2023	SW									INSPECTION PIT A 0.45 0.50	+7.53	0.00			Dark reddish grey (5YR 4/2), sandy clayey SILT with much subangular and subrounded medium to coarse gravel sized rock fragments. (FILL)
										B 0.95 1.00					
										C 1.45	+6.03	1.50			
				78					13 bls	1 1.50					Grey (N5) dappled greyish brown, silty clayey SAND. (ALLUVIUM)
										2 1.95	+5.53	2.00			
										2.00					Drilling without sampling.
	3.00	2.00m at 18:00													
08/07/2023	SW									3.00	+4.53	3.00			
10/07/2023	PW	1.80m at 08:00		100					17 bls	3					Stiff, white (N8) dappled yellowish red, clayey SILT with much subrounded and subangular fine to coarse gravel sized quartz. (ALLUVIUM)
										4 3.45	+4.03	3.50			
										3.50					Drilling without sampling.
										6.00	+1.53	6.00			
				89					9 bls	5				V	Extremely weak, yellowish red (5YR 5/8) striped black, completely decomposed coarse ash crystal TUFF. (Stiff, clayey SILT)
										6 6.45	+1.03	6.50			
										6.50					Drilling without sampling.
	10.00 PW										-2.47	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
26/07/2023

CHECKED BY
CESAR WONG

DATE
27/07/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH26**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 058.66 N 839 311.79	DATE from 08/07/2023 to 11/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.53 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
	HW			100					31 blS	7 10.00 8 10.45 10.50	-2.47 -2.97	10.00 10.50		V	Extremely weak, yellowish red (5YR 5/8), completely decomposed coarse ash crystal TUFF. (Stiff, sandy clayey SILT) Drilling without sampling.
				100					53 blS	9 15.00 10 15.28 15.33	-7.47 -7.97 -12.47	15.00 15.50 20.00		V	Extremely weak, light grey (N7) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy slightly clayey SILT) Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH26**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 058.66 N 839 311.79	DATE from 08/07/2023 to 11/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.53 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				78					141 bls	11 20.00 12 20.45 20.50	-12.47 -12.97	20.00 20.50		V	Extremely weak, light grey (N7) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy slightly clayey SILT) Drilling without sampling.
10/07/2023 11/07/2023		1.60m at 18:00 1.90m at 08:00		89					92 bls	13 25.00 14 25.45 25.50	-17.47 -17.97 -22.47	25.00 25.50 30.00		V	Extremely weak, brown (10YR 5/3) dappled grey, completely decomposed coarse ash crystal TUFF. (Stiff, sandy slightly clayey SILT) Drilling without sampling.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
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- In-situ Vane Shear Test
- Inclinometer Test

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DATE 26/07/2023

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REMARKS

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TYSAN FOUNDATION LIMITED
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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH26**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 826 058.66 N 839 311.79	DATE from 08/07/2023 to 11/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.53 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
11/07/2023	30.50 HW			100					209 bls	30.00 15 16 30.45 30.50	-22.97	30.50		V	Extremely weak, light grey (N7) dappled yellowish brown, completely decomposed coarse ash crystal TUFF. (Stiff, sandy slightly clayey SILT) End of drillhole at 30.50m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
26/07/2023

CHECKED BY
CESAR WONG

DATE
27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH29**

SHEET 1 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 993.23 N 839 216.18	DATE from 12/07/2023 to 15/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.87 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.T. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
12/07/2023	SW									INSPECTION PIT A 0.45 0.50	+7.87	0.00			Firm, yellowish red (5YR 5/8) dappled brown, sandy clayey SILT. (FILL
12/07/2023		Dry at 18:00								B 0.95 1.00					
13/07/2023		Dry at 08:00		89					24 bls	C 1.45 1.50	+6.37	1.50			Extremely weak, light grey (N7) dappled yellow and spotted black, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
										1 1.95 2.00	+5.87	2.00		V	Drilling without sampling.
	3.00 SW									2 3.00	+4.87	3.00			
	PW			100					23 bls	3 3.45 3.50	+4.37	3.50		V	Extremely weak, light grey (N7) dappled yellow and spotted black, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
										4 6.00					Drilling without sampling.
				100					19 bls	5 6.45 6.50	+1.87	6.00		V	Extremely weak, red (10R 5/8) dappled yellowish brown and striped black, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, slightly sandy clayey SILT)
										6	+1.37	6.50			Drilling without sampling.
											-2.13	10.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY
BARRY YIU

DATE
26/07/2023

CHECKED BY
CESAR WONG

DATE
27/07/2023

REMARKS
1. Inspection pit excavated from 0.00m-1.50m.

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
（泰昇集團成員 A member of Tysan Group）

DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH29**

SHEET 2 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 993.23 N 839 216.18	DATE from 12/07/2023 to 15/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.87 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					11 blws	7 10.00 8 10.45 10.50	-2.63	10.50		V	Extremely weak, pale red (10R 6/4) dappled grey and spotted black, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, clayey SILT) Drilling without sampling.
13/07/2023	15.00 PW	2.30m at 18:00									-7.13	15.00			
14/07/2023	HW	2.50m at 08:00		100					55 blws	9 15.00 10 15.28 15.33	-7.63	15.50		V	Extremely weak, greyish brown (10YR 5/2) spotted white, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, slightly sandy clayey SILT) Drilling without sampling.
											-12.13	20.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH29**

SHEET 3 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 993.23 N 839 216.18	DATE from 12/07/2023 to 15/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.87 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
				100					84 bls	11 12	20.00 20.45 20.50	-12.13	20.00		V	Extremely weak, dark grey (N3) dappled yellowish brown, completely decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. (Stiff, slightly sandy clayey SILT)
	22.73 HW							22.73		T2-101	22.73	-14.86	22.73		III	Strong, dark grey striped and spotted white, slightly decomposed slightly metamorphosed lapilli-coarse ash crystal TUFF. Joints are medium to widely spaced, smooth planar, extremely narrow, iron oxide stained, dipping at 30°-40° and 40°-50°. 22.73- 22.80m: Moderately strong, moderately decomposed. 22.73- 24.81m: With some quartz veins (2-5mm thick).
				100	99	99	2.2				23.55	-14.99	22.80			
				100	99	99		24.08		T2-101						
											24.46					
							1.5					-16.94	24.81			
		2.20m at 18:00		100	100	100				T2-101						
14/07/2023								25.44								
15/07/2023		2.70m at 08:00									25.68					
				100	100	100				T2-101					II	
											27.07					
				100	100	100	0.0			T2-101						
											28.49					
				100	100	100				T2-101	28.94					
		2.40m		100	100	100				T2-101		-22.13	30.00			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

PRELIMINARY

泰昇地基工程有限公司
TYSAN FOUNDATION LIMITED
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DRILLHOLE RECORD

CONTRACT No. ND/2021/04

DRILLHOLE No. **AEDH29**

SHEET 4 of 4

PROJECT Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node

METHOD ROTARY	CO-ORDINATES	JOB No. J2202SF06
MACHINE / No. CCL-8	E 825 993.23 N 839 216.18	DATE from 12/07/2023 to 15/07/2023
FLUSHING MEDIUM DRY	ORIENTATION Vertical	GROUND LEVEL +7.87 mP.D.

Drilling Progress	Casing depth/size	Water level (m) Shift start/ end	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	F.I. / Test Depth	Tests	Samples	Reduced Level (mPD) -22.13	Depth (m) 30.00	Legend	Grade	Description
15/07/2023		at 18:00		100	100	100	0.0	30.30		T2-101 30.30	-22.43	30.30		II	As Sheet 3 of 4. End of drillhole at 30.30m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Standard Penetration Test
- Permeability Test
- Impression Packer Test
- Borehole Televiewer Test
- Pressuremeter Test
- Standpipe/Piezometer Tip
- In-situ Vane Shear Test
- Inclinometer Test

LOGGED BY BARRY YIU

DATE 26/07/2023

CHECKED BY CESAR WONG

DATE 27/07/2023

REMARKS

Appendix C

General Site Photo

Photo 1: Drill Rig setup at EDH04

Photo 2: Drill Rig setup at EDH06

Photo 3: Decontamination of equipment between sampling events

Photo 4: Collection of equipment blank

Photo 5: Transferring sample from U100 to soil container

Photo 6: Transferring sample from U100 to soil container

Photo 7: Sample container and cooler storage pending deliver to laboratory

Photo 8: Photo of soil sample AEDH13 – 1.5m, primary sample is more clayey and brow (left), duplicate sample is more silty and with some grey colour (right)

Appendix D

Certificates of Analysis and Summary of Test Results

Arsenic Result

Borehole	Depth	Date	Works Order	Sample ID	Arsenic (mg/kg)	Remark
EDH01	0.5	28/11/2022	HK2247360	HK2247360-001	1	
	1.5	28/11/2022		HK2247360-002	**215**	
	3	28/11/2022		HK2247360-003	**157**	
	6	29/11/2022	HK2247522	HK2247522-002	25	
	6	29/11/2022		HK2247522-003	29	Duplicate Sample
	10	29/11/2022		HK2247522-004	1	
	15	29/11/2022		HK2247522-005	1	
	20	29/11/2022		HK2247522-006	3	
	25	29/11/2022		HK2247522-007	7	
	30	30/11/2022	HK2247659	HK2247659-001	1	
EDH02	0.5	30/12/2022	HK2251810	HK2251810-001	**339**	
	1.5	30/12/2022		HK2251810-002	**345**	
	3	30/12/2022		HK2251810-003	73	
	6	30/12/2022		HK2251810-004	18	
	10	30/12/2022		HK2251810-005	2	
	15	31/12/2022	HK2251831	HK2251831-001	1	
	20	03/01/2022	HK2300146	HK2300146-001	4	
EDH03	0.5	11/01/2023	HK2301814	HK2301814-001	**104**	
	1.5	11/01/2023		HK2301814-002	59	
	3	11/01/2023		HK2301814-003	43	
	6	11/01/2023		HK2301814-004	30	
	10	12/01/2023	HK2302048	HK2302048-001	**161**	
	15	12/01/2023		HK2302048-002	15	
	20	12/01/2023		HK2302048-003	**1140**	
	25	13/01/2023	HK2302279	HK2302279-001	**1090**	
	30	13/01/2023		HK2302279-002	**946**	
EDH04	0.5	26/08/2022	HK2233830	HK2233830-001	5	
	1.5	26/08/2022		HK2233830-002	**121**	
	3	26/08/2022		HK2233830-003	57	
	6	26/08/2022		HK2233830-004	70	
	10	27/08/2022	HK2233896	HK2233896-001	1	
	15	29/08/2022	HK2234038	HK2234038-001	2	
	20	29/08/2022		HK2234038-002	12	
	25	29/08/2022		HK2234038-003	8	
	30	29/08/2022		HK2234038-004	10	
EDH05	0.5	16/08/2022	HK2232309	HK2232309-001	**198**	
	1.5	16/08/2022		HK2232309-002	**178**	
	3	16/08/2022		HK2232309-003	**163**	
	6	17/08/2022	HK2232545	HK2232545-001	**196**	
	10	17/08/2022		HK2232545-002	16	
	15	17/08/2022		HK2232545-003	30	
	20	18/08/2022	HK2232681	HK2232681-001	73	
	25	18/08/2022		HK2232681-002	20	
	30	18/08/2022		HK2232681-003	57	

Borehole	Depth	Date	Works Order	Sample ID	Arsenic (mg/kg)	Remark
EDH06	0.5	09/12/2022	HK2249394	HK2249394-002	276	
	0.5	09/12/2022		HK2249394-003	251	Duplicate Sample
	1.5	09/12/2022		HK2249394-004	297	
	3	09/12/2022		HK2249394-005	608	
	6	09/12/2022		HK2249394-006	8	
	10	10/12/2022	HK2249515	HK2249515-001	3	
	15	10/12/2022		HK2249515-002	179	
	20	12/12/2022	HK2249641	HK2249641-001	77	
	25	12/12/2022		HK2249641-002	85	
	30	12/12/2022		HK2249641-003	42	
EDH07	0.5	05/12/2022	HK2248371	HK2248371-001	8	
	1.5	05/12/2022		HK2248371-002	56	
	3	05/12/2022		HK2248371-003	39	
	6	05/12/2022		HK2248371-004	450	
	10	05/12/2022		HK2248371-005	268	
	15	05/12/2022		HK2248371-006	126	
	20.0-20.50	06/12/2022	HK2248634	HK2248634-001	80	
	25.0-25.50	06/12/2022		HK2248634-002	332	
	30.0-30.50	06/12/2022		HK2248634-003	408	
EDH08	0.5	30/11/2022	HK2247659	HK2247659-002	47	
	1.5	30/11/2022		HK2247659-003	64	
	3	30/11/2022		HK2247659-004	64	
	6	01/12/2022	HK2247873	HK2247873-001	180	
	10	01/12/2022		HK2247873-002	1060	
	15	01/12/2022		HK2247873-003	40	
	20	02/12/2022	HK2248074	HK2248074-001	51	
	25	02/12/2022		HK2248074-002	97	
	30	02/12/2022		HK2248074-003	42	
EDH09	0.5	31/12/2022	HK2251832	HK2251832-001	25	
	1.5	31/12/2022		HK2251832-002	12	
	1.5	31/12/2022		HK2251832-003	12	Duplicate Sample
	3	31/12/2022		HK2251832-005	17	
	6	03/01/2023	HK2300145	HK2300145-001	76	
	10	03/01/2023		HK2300145-002	82	
	15	03/01/2023		HK2300145-003	20	
	20	03/01/2023		HK2300145-004	5	
	25	04/01/2023	HK2300440	HK2300440-001	72	
	30	04/01/2023		HK2300440-002	129	
AEDH01	0.5	28/06/2023	HK2325099	HK2325099-001	25	
	1.5	28/06/2023		HK2325099-002	6	
	3	28/06/2023		HK2325099-003	20	
	6	28/06/2023		HK2325099-004	12	
	10	28/06/2023		HK2325099-005	<1	
	15	28/06/2023		HK2325099-006	1	
	20	29/06/2023	HK2325212	HK2325212-001	<1	

Borehole	Depth	Date	Works Order	Sample ID	Arsenic (mg/kg)	Remark
AEDH03	0.5	23/06/2023	HK2324517	HK2324517-001	16	
	1.5	23/06/2023		HK2324517-002	**86**	
	3	23/06/2023		HK2324517-003	25	
	6	23/06/2023		HK2324517-004	7	
	10	23/06/2023		HK2324517-005	15	
	10	23/06/2023		HK2324517-006	16	Duplicate Sample
	15	23/06/2023		HK2324517-008	16	
	20	24/06/2023	HK2324624	HK2324624-001	7	
	25	24/06/2023		HK2324624-002	3	
	30	26/06/2023	HK2324726	HK2324726-001	3	
AEDH10	0.5	29/05/2023	HK2320671	HK2320671-001	**596**	
	1.5	29/05/2023		HK2320671-002	**822**	
	3	29/05/2023		HK2320671-003	**946**	
	6	29/05/2023		HK2320671-004	65	
	10	29/05/2023		HK2320671-005	**382**	
	15	30/05/2023	HK2320827	HK2320827-001	**238**	
	20	30/05/2023		HK2320827-002	**336**	
	25	30/05/2023		HK2320827-003	**113**	
	30	30/05/2023		HK2320827-004	**89**	
AEDH11	0.5	29/05/2023	HK2320666	HK2320666-001	**294**	
	1.5	29/05/2023		HK2320666-002	**584**	
	3	29/05/2023		HK2320666-003	20	
	6	29/05/2023		HK2320666-004	11	
	10	29/05/2023		HK2320666-005	26	
	15	29/05/2023		HK2320666-006	**77**	
	20	29/05/2023		HK2320666-007	**112**	
	25	30/05/2023	HK2320828	HK2320828-001	**564**	
	30	30/05/2023		HK2320828-002	**183**	
AEDH12	0.5	02/06/2023	HK2321437	HK2321437-001	57	
	1.5	02/06/2023		HK2321437-002	70	
	3	02/06/2023		HK2321437-003	61	
	6	02/06/2023		HK2321437-004	2	
	10	03/06/2023	HK2321519	HK2321519-001	**194**	
	15	05/06/2023	HK2321667	HK2321667-001	**238**	
	20	05/06/2023		HK2321667-002	**236**	
	25	05/06/2023		HK2321667-003	**230**	
	30	05/06/2023		HK2321667-004	**215**	
AEDH13	0.5	01/06/2023	HK2321145	HK2321145-001	53	
	1.5	01/06/2023		HK2321145-002	**116**	
	1.5	01/06/2023		HK2321145-003	48	Duplicate Sample
	3	01/06/2023		HK2321145-004	**335**	
	6	01/06/2023		HK2321145-006	9	
	10	02/06/2023	HK2321440	HK2321440-001	**238**	
	15	02/06/2023		HK2321440-002	**254**	
	20	05/06/2023	HK2321663	HK2321663-001	**399**	
	25	05/06/2023		HK2321663-002	**175**	
	30	05/06/2023		HK2321663-003	**198**	

Borehole	Depth	Date	Works Order	Sample ID	Arsenic (mg/kg)	Remark
AEDH14	0.5	09/06/2023	HK2322623	HK2322623-001	68	
	1.5	09/06/2023		HK2322623-002	**148**	
	3	09/06/2023		HK2322623-003	**238**	
	6	09/06/2023		HK2322623-004	17	
	6	09/06/2023		HK2322623-005	14	Duplicate Sample
	10	10/06/2023	HK2322678	HK2322678-001	17	
	15	12/06/2023	HK2322770	HK2322770-001	**97**	
	20	12/06/2023		HK2322770-002	**92**	
	25	12/06/2023		HK2322770-003	**195**	
	30	12/06/2023		HK2322770-004	**100**	
AEDH23	0.5	16/06/2023	HK2323726	HK2323726-001	**92**	
	1.5	16/06/2023		HK2323726-002	70	
	3	16/06/2023		HK2323726-003	15	
	6	16/06/2023		HK2323726-004	10	
	10	16/06/2023		HK2323726-005	23	
	15	16/06/2023		HK2323726-006	67	
	20	17/06/2023	HK2323839	HK2323839-001	44	
	25	17/06/2023		HK2323839-002	**107**	
	30	19/06/2023	HK2323914	HK2323914-001	33	
AEDH24	0.5	05/07/2023	HK2326088	HK2326088-001	17	
	1.5	05/07/2023		HK2326088-002	**131**	
	3	05/07/2023		HK2326088-003	65	
	6	05/07/2023		HK2326088-004	**194**	
	10	05/07/2023		HK2326088-005	**333**	
	15	05/07/2023		HK2326088-006	**131**	
	20	05/07/2023		HK2326088-007	19	
	25	06/07/2023	HK2326347	HK2326347-001	62	
	30	06/07/2023		HK2326347-002	23	
AEDH25	0.5	19/07/2023	HK2328593	HK2328593-001	23	
	1.5	19/07/2023		HK2328593-002	10	
	3	19/07/2023		HK2328593-003	4	
	6	19/07/2023		HK2328593-004	3	
	10	19/07/2023		HK2328593-005	2	
	15	20/07/2023	HK2328741	HK2328741-001		
	15	20/07/2023		HK2328741-002		Duplicate Sample
	20	21/07/2023	HK2329042	HK2329042-001	2	
	25	21/07/2023		HK2329042-002	6	
AEDH26	0.5	08/07/2023	HK2326917	HK2326917-001	17	
	1.5	08/07/2023		HK2326917-002	10	
	1.5	08/07/2023		HK2326917-003	8	Duplicate Sample
	3	10/07/2023	HK2327069	HK2327069-001	3	
	6	10/07/2023		HK2327069-002	38	
	10	10/07/2023		HK2327069-003	4	
	15	10/07/2023		HK2327069-004	40	
	20	10/07/2023		HK2327069-005	15	
	25	10/07/2023		HK2327069-006	73	
	30	11/07/2023	HK2327238	HK2327238-001	**226**	

Borehole	Depth	Date	Works Order	Sample ID	Arsenic (mg/kg)	Remark
AEDH29	0.5	13/07/2023	HK2327799	HK2327799-001	**81**	
	1.5	13/07/2023		HK2327799-002	32	
	3	13/07/2023		HK2327799-003	15	
	6	13/07/2023		HK2327799-004	**232**	
	6	13/07/2023		HK2327799-005	**249**	Duplicate Sample
	10	13/07/2023		HK2327799-006	**80**	
	15	14/07/2023	HK2328092	HK2328092-001	**221**	
	20	14/07/2023		HK2328092-002	**207**	

Note:

1060	indicate exceedance of 571 mg/kg and RBRG for all landuse scenario
42	indicate exceedance of RBRG for Rural Residential & Urban Residential
129	indicate exceedance of RBRG for Rural Residential, Urban Residential & Public Parks
339	indicate exceedance of RBRG for all landuse scenario

Quality Assurance/Quality Control

Borehole	Depth	Date	Works Order	Sample ID	Arsenic (mg/kg)	Remark
Duplicate sample						
EDH01	6	29/11/2022	HK2247522	HK2247522-002	25	
EDH01	6	29/11/2022	HK2247522	HK2247522-003	29	Duplicate Sample
				Relative Percentage Difference:	14.8%	
EDH06	0.5	09/12/2022	HK2249394	HK2249394-002	**276**	
EDH06	0.5	09/12/2022	HK2249394	HK2249394-003	**251**	Duplicate Sample
				Relative Percentage Difference:	9.5%	
EDH09	1.5	31/12/2022	HK2251832	HK2251832-002	12	
EDH09	1.5	31/12/2022	HK2251832	HK2251832-003	12	Duplicate Sample
				Relative Percentage Difference:	0.0%	
AEDH03	10	23/06/2023	HK2324517	HK2324517-005	15	
AEDH03	10	23/06/2023	HK2324517	HK2324517-006	16	Duplicate Sample
				Relative Percentage Difference:	6.5%	
AEDH13	1.5	01/06/2023	HK2321145	HK2321145-002	116	
AEDH13	1.5	01/06/2023	HK2321145	HK2321145-004	48	Duplicate Sample
				Relative Percentage Difference:	82.9%	
AEDH14	6	09/06/2023	HK2322623	HK2322623-004	17	
AEDH14	6	09/06/2023	HK2322623	HK2322623-005	14	Duplicate Sample
				Relative Percentage Difference:	19.4%	
AEDH25	15	20/07/2023	HK2328741	HK2328741-001	7	
AEDH25	15	20/07/2023	HK2328741	HK2328741-002	7	Duplicate Sample
				Relative Percentage Difference:	0.0%	
AEDH26	1.5	08/07/2023	HK2326917	HK2326917-002	10	
AEDH26	1.5	08/07/2023	HK2326917	HK2326917-003	8	Duplicate Sample
				Relative Percentage Difference:	22.2%	
AEDH29	6	13/07/2023	HK2327799	HK2327799-004	232	
AEDH29	6	13/07/2023	HK2327799	HK2327799-005	249	Duplicate Sample
				Relative Percentage Difference:	7.1%	

Note:

1060	indicate exceedance of 571 mg/kg and RBRG for all landuse scenario
42	indicate exceedance of RBRG for Rural Residential & Urban Residential
129	indicate exceedance of RBRG for Rural Residential, Urban Residential & Public Parks
339	indicate exceedance of RBRG for all landuse scenario

Equipment Blank	Date	Works Order	Sample ID	Arsenic (µg/L)	Remark
Equipment Blank	31/12/2022	HK2247522	HK2247522-001	<10	
Equipment Blank	09/12/2022	HK2249394	HK2249394-001	<10	
Equipment Blank	01/06/2023	HK2321145	HK2321145-005	<10	
AEDH14 Equipment Blank	09/06/2023	HK2322623	HK2322623-006	<10	
AEDH3 Equipment Blank	23/06/2023	HK2324517	HK2324517-007	<10	
Equipment Blank	08/07/2023	HK2326917	HK2325099-004	<10	
AEDH29 (Equipment Blank)	13/07/2023	HK2327799	HK2327799-007	<10	
AEDH25 (Equipment Blank)	20/07/2023	HK2328741	HK2328741-003	<10	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	
Client Contact Name:	Ted Yip	Client Contact Name:	Please refer to
E-mail:	tedyip.si@tysan.com	E-mail:	~~sent~~ sample
Phone:	6156 7251	Phone:	submission form
Report Address:	Please refer to submission form	Invoice Address:	

B 101228

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☑ / Broken ☐ / Not Available ☐
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH01 (0.5m)	Soil	28-11-22	11:30	1	✓	
2	EDH01 (1.5m)	Soil	28-11-22	15:25	1	✓	
3	EDH01 (3.0m)	Soil	28-11-22	16:00	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Sammon
Date & Time:	28/11	Date & Time:		Date & Time:		Date & Time:	28/11/2022 16:45
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	
Client Contact Name:	Ted YIP	Client Contact Name:	Please refer to
E-mail:	tedyip.ST@tysan.com	E-mail:	Sample submission form
Phone:	6156 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 101229

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract no. IVD/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ~~☑~~ / Broken ☐ / Not Available ☐	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C	

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	Arsenic	Remarks
~~1~~	~~EDH01C~~						
1	Equipment Blank	Water	29-11-22	09:30	1	✓	
2	EDH01 (6.0m - Duplicate)	Soil	29-11-22	10:05	1	✓	
3	EDH01 (6.00m)	Soil	29-11-22	10:05	1	✓	
4	EDH01 (10.00m)	Soil	29-11-22	11:25	1	✓	
5	EDH01 (15.00m)	Soil	29-11-22	14:14	1	✓	
6	EDH01 (20.00m)	Soil	29-11-22	15:15	1	✓	
7	EDH01 (25.00m)	Soil	29-11-22	16:15	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian YB	Responsible Person:		Responsible Person:		Responsible Person:	Sam Ma
Date & Time:	29/11/22	Date & Time:		Date & Time:		Date & Time:	29/11/2022 17:00
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip@STCA.tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	Please refer to sample
E-mail:	submission form
Phone:	
Invoice Address:	

B 101230

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin/ Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☑ / Broken ☐ / Not Available ☐
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH01 (30.00m)	Soil	30/11/22	10:25	1	✓	
2	EDH08 (0.50m)	Soil	30/11/22	13:15	1	✓	
3	EDH08 (1.50m)	Soil	30/11/22	14:45	1	✓	
4	EDH08 (3.00m)	Soil	30/11/22	15:40	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Sammy
Date & Time:		Date & Time:		Date & Time:		Date & Time:	30/11/2022 16:40
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

B 101236

ALS Technichem (HK) Pty Ltd

Part 1: Reporting Information

Company Name:	TYSAN Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	Tedyip.sica@tysan.com
Phone:	6151 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	Submission form
E-mail:	
Phone:	
Invoice Address:	

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKCE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance C.I for San Tin / Lok ma chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	EDH02 (0.50m)	Soil	30-12-22	9:15	1	✓	
2	EDH02 (1.50m)	Soil	30-12-22	9:45	1	✓	
3	EDH02 (3.00m)	Soil	30-12-22	11:30	1	✓	
4	EDH02 (6.00m)	Soil	30-12-22	1:45pm	1	✓	
5	EDH02 (10.00m)	Soil	30-12-22	4:00 pm	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:	Tysan	Company Name:	ALS HK
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:	Brian Tse	Responsible Person:	Keten Law
Date & Time:	30-12-22	Date & Time:		Date & Time:	30-12-22	Date & Time:	30-Dec-2022 17:28
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	TYSAN Foundation limited
Client Contact Name:	Ted Yip
E-mail:	tedyip.si@tysan.com
Phone:	6151 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	submission form
E-mail:	
Phone:	
Invoice Address:	

B 101239

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no NP/2021/04 Advance Ground investigation for San Tin / Lok ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	EH02 (15.00m)	Soil	31-12-22	9:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:		Company Name:		Company Name:		Company Name:	ALS
Responsible Person:		Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheung
Date & Time:		Date & Time:		Date & Time:		Date & Time:	31-12-22 1205
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TYSAN Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	Submission form
E-mail:	tedyip@sica.tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	please refer to Submission form	Invoice Address:	

B 100463

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/14551/2022	
Project Name / ID:	Contract no. ND/2021/04 Advance Ground investigation for San tin / Lok ma chau development node	
Site Name / ID:		
Service Request (Working Day):	Regular ☒ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☒	
Package:	Cooler box ☒ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☒ / Ambient ☐ / Frozen ☐ _____ °C	

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	EDH02 (20.0m)	Soil	~~1/3/23~~ 1-3-23	15:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:	3/1/23	Date & Time:		Date & Time:		Date & Time:	3/1/23 1715
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TYSAN Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	Submission form
E-mail:	tedyip.sica@tysan.com	E-mail:	
Phone:	6151 7251	Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 100465

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/14555/2022	
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation for San Tin/Lok Ma Chau Development Node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C	

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH03 (0.50 m)	Soil	11-1-23	9:45	1	✓	
2	EDH03 (1.50 m)	Soil	11-1-23	11:00	1	✓	
3	EDH03 (3.00 m)	Soil	11-1-23	14:30	1	✓	
4	EDH04 (6.00 m)	Soil	11-1-23	15:50	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Emma
Date & Time:	11-1-23	Date & Time:		Date & Time:		Date & Time:	1/11/2023 16:40
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TYSAN Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	Submission form
E-mail:	tedyip@ica.tysan.com	E-mail:	
Phone:	6151 7251	Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 100466

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/14558/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground investigation for San tin / Lok ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH03 (10.00 m)	Soil	12-1-23	10:15	1	✓	
2	EDH03 (15.00m)	Soil	12-1-23	13:45	1	✓	
3	EDH03 (20.00m)	Soil	12-1-23	15:45	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Jamma
Date & Time:	12-1-23	Date & Time:		Date & Time:		Date & Time:	12/1/2023 17:05
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	TYSAN Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip-sic@tysan.com
Phone:	6151 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	submission form
E-mail:	
Phone:	
Invoice Address:	

B 100467

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation for San Tin / Lok Ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH03 (25.00 m)	Soil	13-1-23	10:15	1	✓	
2	EDH03 (30.00 m)	Soil	13-1-23	13:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:	13-1-23	Date & Time:		Date & Time:		Date & Time:	13-1-23 17:05
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name: Tysan Foundation Limited
Client Contact Name: 20/F. One Island South, 2 Heong Yip Rd, Wong Chuk Hang
E-mail: tedyip.si@tysan.com
Phone: 6156 7251
Report Address: cesarwong.si@tysan.com / tedyip.si@tysan.com
cchum.stlmc@gmail.com ~~iman.cheng@cemnet.polyu.hk~~
(please refer to sample submission form)

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name: Please refer to
Client Contact Name: sample submission
E-mail: form
Phone: 2830 1545
Invoice Address:

B 101224

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:
ALS Quotation No: HKE/1455/2022
Project Name / ID: Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node
Site Name / ID: Chau Tau

Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	Arsenic	Remarks
1	EDH04 (0.5 m)	Soil	26-8-22	15:00	1	✓	
2	EDH04 (1.5 m)	Soil	26-8-22	15:30	1	✓	
3	EDH04 (3.0 m)	Soil	26-8-22	16:00	1	✓	
4	EDH04 (6.0 m)	Soil	26-8-22	16:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	
Date & Time:		Date & Time:		Date & Time:		Date & Time:	26/8/2022 17:40
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name: Tysan Foundation Limited
Client Contact Name: 20/F, One Island South, 2 Heong Yip Rd, Wong Chuk Hang
E-mail: tedyip.si@tysan.com
Phone: 6156 7251
Report Address: cesarwong.si@tysan.com / tedyip.si@tysan.com
ccshum.stfmc@gmail.com / ~~man.cheng@connect.polyu.hk~~
(please refer to sample submission form) Peter.Chong@aecom.com

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name: Please refer to
Client Contact Name: sample submission
E-mail: form
Phone: 2830 1545
Invoice Address:

B 101226

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:
ALS Quotation No: HKE/1455/2022
Project Name / ID: Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID: Chau Tau

Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☐
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	EDH04 (10.0m)	Soil	27-8-22	10:00	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Jason Cheung
Date & Time:		Date & Time:		Date & Time:		Date & Time:	27/8 11:20
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name: Tysan Foundation Limited
Client Contact Name: 20/F, One ~~South~~ Island South, 2 Heong Yip Rd, Wong Chuk Hang
E-mail: tedyip.si@tysan.com
Phone: 6156 7251
Report Address: Cesarwong.si@tysan.com / tedyip.si@tysan.com
ccshum.stmc@gmail.com / Peter.Chong@aecom.com
(please refer to sample submission form)

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name: Please refer to
Client Contact Name: sample submission
E-mail: form
Phone: 2830 1545
Invoice Address:

B 101227

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:
ALS Quotation No: HKE/1455/2022
Project Name / ID: Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID: Chau Tau

Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH04 (15.0m)	Soil	29-8-22	9:30	1	✓	
2	EDH04 (20.0m)	Soil	29-8-22	11:00	1	✓	
3	EDH04 (25.0m)	Soil	29-8-22	11:50	1	✓	
4	EDH04 (30.0m)	Soil	29-8-22	14:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Jamma
Date & Time:		Date & Time:		Date & Time:		Date & Time:	29/8/2022 17:10
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	2/F., Ap Lei Island South, 2 Heung Yip Rd, Wong Chuk Hang
E-mail:	tedyip.si@tysan.com
Phone:	6156 7251
Report Address:	oscarwong.si@tysan.com / tedyip.si@tysan.com cc shum.stlmc@gmail.com / man.chong@connect.polyu.hk (Please refer to sample Submission Form)

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	Sample Submission
E-mail:	Form
Phone:	2850 1545
Invoice Address:	

B 101221

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID:	Chau Tau
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH05 (0.5m)	Soil	16-8-2022	11:30	1	✓	
2	EDH05 (1.5m)	Soil	16-8-2022	14:00	1	✓	
3	EDH05 (3.0m)	Soil	16-8-2022	14:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Jamma
Date & Time:		Date & Time:		Date & Time:		Date & Time:	16/8/2022 17:00
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name: Tysan Foundation Limited
Client Contact Name: 20/F, One Island South, 2 Heong Yip Rd. Wong Chuk Hang
E-mail: tedyip.si@tysan.com
Phone: 6156 7251
Report Address: cesarwong.si@tysan.com / tedyip.si@tysan.com
ccshum.stlmc@gmail.com / man.cheng@connect.polyu.hk
(please refer to sample submission form)

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name: Please refer to
Client Contact Name: sample submission
E-mail: form
Phone: 2830 1545
Invoice Address:

B 101222

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:
ALS Quotation No: HKE/1455/2022
Project Name / ID: Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID: Chau Tau

Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☐
Package:	Cooler box ☐ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☐ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH05 (6.0m)	Soil	17-8-2022	9:30	1	✓	
2	EDH05 (10.0m)	Soil	17-8-2022	14:00	1	✓	
3	EDH05 (15.0m)	Soil	17-8-2022	15:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Jenny Ma
Date & Time:		Date & Time:		Date & Time:		Date & Time:	17/8/2022 16:24
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information	**Part 2: Billing Information for Invoice (If different from Reporting Information)**	B 101223
Company Name: Tysan Foundation Limited	Company Name: Please refer to sample	
Client Contact Name: 20/F, One Island South, 2 Heong Yip Rd. Wong Chuk Hang	Client Contact Name: submission form	
E-mail: tedyip.si@tysan.com	E-mail:	
Phone: 6156 7251	Phone: 2830 1545	ALS Technichem (HK) Pty Ltd
Report Address: cesarwong.si@tysan.com / tedyip.si@tysan.com	Invoice Address:	
ccshum.stlmc@gmail.com / man.cheng@connect.polyu.hk		
(please refer to sample submission form)		

Part 3: Project & Sample Information		**Part 4: Test Required**	For ALS HK Workorder label use
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022		
Project Name / ID:	Contrait No. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node		
Site Name / ID:	Chau Tau		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)		
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑		
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐		
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C		

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	Arsenic	Remarks
1	EDH05(20.0m)	soil	18-8-2022	9:30	1	✓	
2	EDH05(25.0m)	soil	18-8-2022	11:30	1	✓	
3	EDH05(30.0m)	soil	18-8-2022	12:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Tedd Yip	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheung
Date & Time:		Date & Time:		Date & Time:		Date & Time:	18-8-2022 1525
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to submission form
Client Contact Name:	Ted Yip	Client Contact Name:	
E-mail:	tedyip.sib@tysan.com	E-mail:	
Phone:	61567251	Phone:	
Report Address:	Please refer to submission	Invoice Address:	

S 100501

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin Lok Ma Chau Development Node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C	

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
~~1~~		Soil	9-12-22		1	~~✓~~	
1	Equipment Blank Bottle	Water	9-12-22	08:50	1	✓	
2	EDH06 (0.50M)	Soil	9-12-22	09:00	1	✓	
3	EDH06 (0.50M) (Duplicate)	Soil	9-12-22	09:00	1	✓	
4	EDH06 (1.50M)	Soil	9-12-22	11:00	1	✓	
5	EDH06 (3.00M)	Soil	9-12-22	13:30	1	✓	
6	EDH06 (6.00M)	Soil	9-12-22	15:05	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:	9-12-22 15:30	Date & Time:		Date & Time:		Date & Time:	9/12/2022 1550
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	
Client Contact Name:	Ted Yip	Client Contact Name:	Please refer to
E-mail:	tedyip.si@tysan.com	E-mail:	sample submission form
Phone:	6156 7251	Phone:	
Report Address:	Please refer to sample submission form	Invoice Address:	

S 100502

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for Sun Tin/Lok Ma Chau Development Node
Site Name / ID:	Kwu Tung Road
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH06 (10.0m)	Soil	10-12-22	09:00	1	✓	
2	EDH06 (15.0m)	Soil	10-12-22	10:45	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Jason Cheung
Date & Time:	10-12-22	Date & Time:		Date & Time:		Date & Time:	10/12/2022 11:30
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	Tedyip.sica tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	submission form
E-mail:	
Phone:	
Invoice Address:	

B 101234

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/14455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	EDH06 (20.0 m)	Soil	12-12-22	09:40	1	✓	
2	EDH06 (25.0 m)	Soil	12-12-22	10:30	1	✓	
3	EDH06 (30.0 m)	Soil	12-12-22	11:30	1	✓	

For ALS HK Workorder label use

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip Brian Lo	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:		Date & Time:		Date & Time:		Date & Time:	12/12/2022 1635
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	submission form
E-mail:	tedyip@tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 101233

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH07 (0.50 m)	Soil	5-12-22	9:30	1	✓	
2	EDH07 (1.50 m)	Soil	5-12-22	10:45	1	✓	
3	EDH07 (3.00 m)	Soil	5-12-22	11:25	1	✓	
4	EDH07 (6.00 M)	Soil	5-12-22	14:00	1	✓	
5	EDH07 (10.00 M)	Soil	5-12-22	14:45	1	✓	
6	EDH07 (15.00 M)	Soil	5-12-22	15:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheung
Date & Time:		Date & Time:		Date & Time:		Date & Time:	5/12/2022 1645
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TYSAN Foundation Limited	Company Name:	please refer to submission form
Client Contact Name:	Ted Yip	Client Contact Name:	
E-mail:	tedyip.si@tysan.com	E-mail:	
Phone:	6151 7251	Phone:	
Report Address:	please refer to submission form	Invoice Address:	

B 101235

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation for Sanfu Yokema Area Development Node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C	

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	BDH07 (20.0 - 20.50m)	Soil	06-12-22	10:00am	1	✓	
2	BDH07 (25.0 - 25.50m)	Soil	06-12-22	11:10am	1	✓	
3	BDH07 (30.0 - 30.50m)	Soil	06-12-22	15:15pm	1	✓	

Part 5: Handling Information	Sampling Conducted by:	Sampling Supervised by:	Samples Picked up & Delivered By:	Samples Received by:
Company Name:	TYSAN			ALS
Responsible Person:	Ken Wong			Emma
Date & Time:	6/12/2022			6/12/2022 16:15
Signature:				

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TySan Foundation Limited	Company Name:	
Client Contact Name:	Ted Yip	Client Contact Name:	Please refer to
E-mail:	tedyip@sl.tysan.com	E-mail:	Submission form
Phone:	6156 7251	Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 101231

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☑ / Broken ☐ / Not Available ☑	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C	

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report).	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	EDH08 (6.00m)	Soil	1-12-22	9:30	1	✓	
2	EDH08 (10.00m)	Soil	1-12-22	14:00	1	✓	
3	EDH08 (15.00m)	Soil	1-12-22	15:15	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TySan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Samma
Date & Time:	1-12-22 16:00	Date & Time:		Date & Time:		Date & Time:	1/12/2022 16:30
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip.sica tysan.com
Phone:	6156 7251
Report Address:	Please refer to Submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	Submission form
E-mail:	
Phone:	
Invoice Address:	

B 101232

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/14551/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☑ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH 08 (20.00m)	Soil	2-12-22	9:30	1	✓	
2	EDH 08 (25.00m)	Soil	2-12-22	10:45	1	✓	
3	EDH 08 (30.00m)	Soil	2-12-22	13:45	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Jemma
Date & Time:		Date & Time:		Date & Time:		Date & Time:	2/12/2022 16:40
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip.si@tysan.com
Phone:	6156 7251
Report Address:	Refer to sample submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	
E-mail:	Refer to sample
Phone:	submission form
Invoice Address:	

B 101238

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH09 (0.5m)	Soil	31-12-2022	10:30	1	✓	
2	EDH09 (1.5m)	Soil	31-12-2022	10:35	1	✓	
3	EDH09 (1.5m Dup)	Soil	31-12-2022	10:35	1	✓	
4	EDH09 (Egu blank)	Wtg	31-12-2022	10:45	1	✓	
5	EDH09 (3.0m)	Soil	31-12-2022	11:00	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan Foundation Limited	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Cesar Wong	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheung
Date & Time:	31-12-2022 11:05	Date & Time:		Date & Time:		Date & Time:	31-12-2022 12:05
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TYSAN Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	submission form
E-mail:	tedyip.sica tysan.com	E-mail:	
Phone:	6151 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 101240

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKCE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground investigation for San tin / Lok ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH09 (6.00m)	Soil	3/1/23	10:30	1	✓	
2	EDH09 (10.00m)	Soil	3/1/23	13:45	1	✓	
3	EDH09 (15.00m)	Soil	3/1/23	15:05	1	✓	
4	EDH09 (20.00m)	Soil	3/1/23	16:05	1	✓	
~~5~~	~~EDH09~~						

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheung
Date & Time:	3/1/23	Date & Time:		Date & Time:		Date & Time:	3/1/23 17:15
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	TYSAN Foundation Limited	Company Name:	Please refer to
Client Contact Name:	ted Yip	Client Contact Name:	submission form
E-mail:	tedyip.si@tysan.com	E-mail:	
Phone:	6151 7251	Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 100464

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: ~~HK~~ HKE/1455/2022
Project Name / ID:	Contract no. NP/2021/04/Advance Ground Investigation for San Tin/Lok Ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	EDH09 (25.00m)	Soil	4-1-23	10:30	1	✓	
2	EDH09 (30.00m)	Soil	4-1-23	11:45	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Yip	Responsible Person:		Responsible Person:		Responsible Person:	Gary Chem
Date & Time:	4-1-23	Date & Time:		Date & Time:		Date & Time:	4-1-23 1655
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

B 102187

ALS Technichem (HK) Pty Ltd

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip.si@tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	
E-mail:	
Phone:	Please refer to
Invoice Address:	submission form

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau development NDA
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH01 (0.50m)	Soil	28-6-23	9:45	1	✓	
2	AEDH01 (1.50m)	Soil	28-6-23	10:15	1	✓	
3	AEDH01 (3.00m)	Soil	28-6-23	10:50	1	✓	
4	AEDH01 (6.00m)	Soil	28-6-23	13:00	1	✓	
5	AEDH01 (10.00m)	Soil	28-6-23	14:15	1	✓	
6	AEDH01 (15.00m)	Soil	28-6-23	14:45	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	~~28-6-23~~ Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Yip	Responsible Person:		Responsible Person:		Responsible Person:	Samma
Date & Time:	28-6-23	Date & Time:		Date & Time:		Date & Time:	28/6/23 17:05
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip.sic@tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	
E-mail:	
Phone:	
Invoice Address:	Please refer to submission form

B 102188

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH01 (20.00 m)	Soil	29-6-23	10:45	1	✓	
~~2~~	~~AEDH01 (25.00 m)~~	~~Soil~~	~~29-6-23~~		~~1~~	~~✓~~	
~~3~~	~~AEDH01 (30.00 m)~~	~~Soil~~	~~29-6-23~~		~~1~~	~~✓~~	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian YE	Responsible Person:		Responsible Person:		Responsible Person:	Emma
Date & Time:	29-6-23	Date & Time:		Date & Time:		Date & Time:	29/6/2023 1520
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	please refer
Client Contact Name:	Ted Yip	Client Contact Name:	to submission form
E-mail:	ted.yip@tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 100480

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract no. NV/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau development node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C	

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	AEDH03 (0.50m)	Soil	23-6-23	9:30	1	✓	
2	AEDH03 (1.50m)	Soil	23-6-23	10:15	1	✓	
3	AEDH03 (3.00m)	Soil	23-6-23	10:45	1	✓	
4	AEDH03 (6.00m)	Soil	23-6-23	12:00	1	✓	
5	AEDH03 (10.00m)	Soil	23-6-23	12:20	1	✓	
6	AEDH03 (10.00m) Duplicate	Soil	23-6-23	12:35	1	✓	
7	AEDH03 Equipment blank	Water	23-6-23	12:40	1	✓	
8	AEDH03 (15.00m)	Soil	23-6-23	13:45	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Janna
Date & Time:	23-6-23	Date & Time:		Date & Time:		Date & Time:	23/6/2023 1435
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	tet yip
E-mail:	tetyip.si@tysan.com
Phone:	6156 7251
Report Address:	please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer
Client Contact Name:	to submission
E-mail:	
Phone:	for us
Invoice Address:	

B 102185

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/14955/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin/ Lok Ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH03 (20.00m)	Soil	24-6-23	11:02	1	✓	
2	AEDH03 (25.00m)	Soil	24-6-23	12:00	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Chong
Date & Time:	24-6-23	Date & Time:		Date & Time:		Date & Time:	24-6-2023 1235
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

B 102186

ALS Technichem (HK) Pty Ltd

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to submission form
Client Contact Name:	ted yip	Client Contact Name:	
E-mail:	tedyip.sica@tysan.com	E-mail:	
Phone:	6186 7251	Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract No. NE/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C	

Argen.x

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEH03 (30.00m)	Soil	26-6-23	11:10	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian 98	Responsible Person:		Responsible Person:		Responsible Person:	
Date & Time:	-6-23	Date & Time:		Date & Time:		Date & Time:	26/6/2023 1400
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip@si.tysan.com
Phone:	61567251
Report Address:	Please refer to Submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to Submission form
Client Contact Name:	
E-mail:	
Phone:	
Invoice Address:	

B 102183

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/14551/22
Project Name / ID:	Contract no. ND/2021/24 Advance Ground Investigation for San Tin / Lok Ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH10 (0.50m)	Soil	29-5-23	10:30	1	✓	
2	AEDH10 (1.50m)	Soil	29-5-23	10:45	1	✓	
3	AEDH10 (3.00m)	Soil	29-5-23	11:15	1	✓	
4	AEDH10 (6.00m)	Soil	29-5-23	13:30	1	✓	
5	AEDH10 (10.00m)	Soil	29-5-23	14:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	
Date & Time:	29-5-23	Date & Time:		Date & Time:		Date & Time:	29/5/2023 16:20
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information	
Company Name:	TYSAN Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip.sica tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Please refer to submission
Client Contact Name:	form
E-mail:	
Phone:	
Invoice Address:	

B 102182

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1435/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation for San Tin/Lok Ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	AEDH10 (15.00m)	Soil	30-5-23	09:15	1	✓	
2	AEDH10 (20.00m)	Soil	30-5-23	11:00	1	✓	
3	AEDH10 (25.00m)	Soil	30-5-23	11:45	1	✓	
4	AEDH10 (30.00m)	Soil	30-5-23	15:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian To	Responsible Person:		Responsible Person:		Responsible Person:	Jemma
Date & Time:	30-5-23	Date & Time:		Date & Time:		Date & Time:	30/5/2023 16:55
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip.si@tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to Submission
Client Contact Name:	form
E-mail:	
Phone:	
Invoice Address:	

B 102181

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground investigation for San Tin/Lok ma Chau development node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH11 (0.50 m)	Soil	29-5-23	10:00	1	✓	
2	AEDH11 (1.50 m)	Soil	29-5-23	10:15	1	✓	
3	AEDH11 (3.00 m)	Soil	29-5-23	10:30	1	✓	
4	AEDH11 (6.00 m)	Soil	29-5-23	11:15	1	✓	
5	AEDH11 (10.00 m)	Soil	29-5-23	12:00	1	✓	
6	AEDH11 (15.00 m)	Soil	29-5-23	14:45	1	✓	
7	AEDH11 (20.00 m)	Soil	29-5-23	15:30	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	TYSAN	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Joanna
Date & Time:	29-5-23	Date & Time:		Date & Time:		Date & Time:	29/5/2023 1620
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	submission form
E-mail:	tedyip@sjca.tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 102184

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation for San Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH11 (25.00m)	Soil	30-5-23	~~11:45~~	3	✓	
2	AEDH11 (30.00m)	Soil	30-5-23	14:45	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Janina
Date & Time:	30-5-23	Date & Time:		Date & Time:		Date & Time:	30/5/2023, 16:57
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	
Client Contact Name:	Ted Yip	Client Contact Name:	
E-mail:	tedyip@si.ca.tysan.com	E-mail:	
Phone:	6156 7251	Phone:	Please refer to
Report Address:	Please refer to submission form	Invoice Address:	submission form

B 100470

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☑ / Broken ☐ / Not Available ☐
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH12 (0.50m)	Soil	2-6-23	10:45	1	✓	
2	AEDH12 (1.50m)	Soil	2-6-23	11:05	1	✓	
3	AEDH12 (3.00m)	Soil	2-6-23	14:30	1	✓	
4	AEDH12 (6.00m)	Soil	2-6-23	15:10	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Jamyn
Date & Time:	2-6-23	Date & Time:		Date & Time:		Date & Time:	5/6/2023 16:50
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Tedyip	Client Contact Name:	Submission form
E-mail:	tedyip.si@tysan.com	E-mail:	
Phone:		Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 100471

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information		Part 4: Test Required
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022	
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development node	
Site Name / ID:		
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)	
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☐	
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐	
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C	

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	AEPH12 (10.00m)	Soil	3-6-23	11:09	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian 陳 TSE	Responsible Person:		Responsible Person:		Responsible Person:	Dorothy Ko
Date & Time:	3-6-23	Date & Time:		Date & Time:		Date & Time:	3/6/23 12:30
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	B 100473
Client Contact Name:	ted yip	Client Contact Name:	
E-mail:	ted.yip.151@tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	please refer to submission form	Invoice Address:	please refer to submission form

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. NDI/2021/04 Advance (Ground Investigation Works for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: 1-Arsenic	Remarks
1	AED1H12 (15.00 m)	Soil	5-6-23	11:00	1	✓	
2	AED1H12 (20.00 m)	Soil	5-6-23	13:00	1	✓	
3	AED1H12 (25.00m)	Soil	5-6-23	14:00	1	✓	
4	AED1H12 (30.00m)	Soil	5-6-23	15:15	1	✓	

Part 5: Handling Information							
Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:	5-6-23	Date & Time:		Date & Time:		Date & Time:	5-6-23 1715
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	
Client Contact Name:	Ted Yip	Client Contact Name:	
E-mail:	ted.yip.tsi@tysan.com	E-mail:	Please refer to
Phone:	61567251	Phone:	submission form
Report Address:	Please refer to submission form	Invoice Address:	

B 100468

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH13 (0.50m)	Soil	1-6-23	14:00	1	✓	
2	AEDH13 (1.50m)	Soil	1-6-23	14:20	1	✓	
3	AEDH13 (3.00m)	Soil	1-6-23	14:40	1	✓	
4	AEDH13 (1.50m Duplicate)	Soil	1-6-23	14:20	1	✓	
5	AEDH13 (Equipment blank)	liquid	1-6-23	14:20	1	✓	
6	AEDH13 (6.00m)	Soil	1-6-23	16:00	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	B Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Yip	Responsible Person:		Responsible Person:		Responsible Person:	Janna
Date & Time:	1-6-23	Date & Time:		Date & Time:		Date & Time:	1/6/2023 1700
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip@tysan.com.hk
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	
E-mail:	Please refer to submission
Phone:	form
Invoice Address:	

B 100469

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/22
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation for Sandy Bay Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☐
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AED1413 (10.00m)	Soil	2-6-23	11:00	1	✓	
2	AED1413 (15.00m)	Soil	2-6-23	11:50	1	✓	
~~3~~	~~AED1413 (20.00m)~~	~~Soil~~	~~2-6-23~~				

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Emma
Date & Time:	2-6-23	Date & Time:		Date & Time:		Date & Time:	2/6/2023 1650
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	submission form
E-mail:	ted.yip.sica tysan.com	E-mail:	
Phone:	61567251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 100472

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/14551/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH13 (22.00m)	Soil	5-6-23	10:00	1	✓	
2	AEDH13 (25.00m)	Soil	5-6-23	11:15	1	✓	
3	AEDH13 (30.00m)	Soil	5-6-23	14:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian TR	Responsible Person:		Responsible Person:		Responsible Person:	Grace Chen
Date & Time:	5-6-23	Date & Time:		Date & Time:		Date & Time:	5-6-2023 17:15
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	ted yip	Client Contact Name:	Submission form
E-mail:	ted.yip.si@tysan.com	E-mail:	
Phone:		Phone:	
Report Address:	Please refer to Submission form	Invoice Address:	

B 100474

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH14 (0.50m)	Soil	9-6-23	14:00	1	✓	
2	AEDH14 (1.50m)	Soil	9-6-23	14:05	1	✓	
3	AEDH14 (3.00m)	Soil	9-6-23	14:35	1	✓	
4	AEDH14 (6.00m)	Soil	9-6-23	15:30	1	✓	
5	AEDH14 (6.00m Duplicate)	Soil	9-6-23	15:35	1	✓	
6	AEDH14 (Equipment blank)	water	9-6-23	15:40	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Ty San	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheung
Date & Time:	9-6-23	Date & Time:		Date & Time:		Date & Time:	9-6-23 1615
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	B 100476
Client Contact Name:	ted yip	Client Contact Name:	
E-mail:	ted yip. SIca tysan.com	E-mail:	
Phone:		Phone:	
Report Address:	please refer to submission form	Invoice Address:	Please refer to submission form

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	AGDH14 (10.0 m)	Soil	10-6-2023	10:35	1	✓	

For ALS HK Workorder label use

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Gary Chan
Date & Time:	10-6-23	Date & Time:		Date & Time:		Date & Time:	10/6/2023 1150
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	B 100477
Client Contact Name:	Ted Yip	Client Contact Name:	please refer
E-mail:	tedyip.si@tysan.com	E-mail:	to submission
Phone:	6156 7251	Phone:	form
Report Address:	Please refer to submission form	Invoice Address:	

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/22C
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test: Arsenic	Remarks
1	AEDH14 (15.00m)	Soil	12-6-23	9:30	1	✓	
2	AEDH14 (20.00m)	Soil	12-6-23	10:15	1	✓	
3	AEDH14 (25.00m)	Soil	12-6-23	11:10	1	✓	
4	AEDH14 (30.00m)	Soil	12-6-23	13:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	
Date & Time:	12-6-23	Date & Time:		Date & Time:		Date & Time:	12/6/2023 14:50
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	Submission form
E-mail:	ted.yip.sic@tysan.com	E-mail:	
Phone:		Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 100475

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKG/1455/2022
Project Name / ID:	Contract No. ND/2021/24 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH#23 (0.50m) (cy)	Soil	16-6-23	9:30	1	✓	
2	AEDH#23 (1.50m) (cy)	Soil	16-6-23	9:45	1	✓	
3	AEDH#23 (3.00m) (cy)	Soil	16-6-23	10:45	1	✓	
4	AEDH#23 (6.00m) (cy)	Soil	16-6-23	11:40	1	✓	
5	AEDH#23 (10.00m) (cy)	Soil	16-6-23	13:30	1	✓	
6	AEDH#23 (15.00m) (cy)	Soil	16-6-23	14:00	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:	16-6-23	Date & Time:		Date & Time:		Date & Time:	16-6-2023 15:40
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan foundation limited
Client Contact Name:	ted Yip
E-mail:	ted.yip.si@tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	
E-mail:	
Phone:	Please refer to
Invoice Address:	Submission form

B 100478

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	~~ND/2021/04~~
ALS Quotation No:	HKE/1455/22L
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH23 (20.00m)	Soil	17-6-23	10:15	1	✓	
2	AEDH23 (25.00m)	Soil	17-6-23	12:00	1	✓	

Part 5: Handling Information

	Sampling Conducted by:	Sampling Supervised by:	Samples Picked up & Delivered By:	Samples Received by:
Company Name:	Tysan			ALS
Responsible Person:	Brian Tse			
Date & Time:	17-6-23			17/6/2023 12:26
Signature:				

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer
Client Contact Name:	Ted Yip	Client Contact Name:	to submission form
E-mail:	ted.yip.si@tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

B 100479

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HK6/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For Sai Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others:(_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(√) Tick the requested test: Arsenic	Remarks
1	AEDH23 (30.0 - 30.5m)	Soil	19-6-23	10:30	1	√	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	
Date & Time:	19-6-23	Date & Time:		Date & Time:		Date & Time:	19/6/2023 1440
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip@tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	Please refer to
E-mail:	submission form
Phone:	
Invoice Address:	

B 102189

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin / Lok Ma Chau Development North
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	Arsenic	Remarks
1	AEDH24 (0.50m)	Soil	5-7-23	10:00	1	✓	
2	AEDH24 (1.50m)	Soil	5-7-23	10:15	1	✓	
3	AEDH24 (3.00m)	Soil	5-7-23	10:30	1	✓	
4	AEDH24 (6.00m)	Soil	5-7-23	10:50	1	✓	
5	AEDH24 (10.00m)	Soil	5-7-23	11:50	1	✓	
6	AEDH24 (15.00m)	Soil	5-7-23	13:30	1	✓	
7	AEDH24 (20.00m)	Soil	5-7-23	15:45	1	✓	

For ALS HK Workorder label use

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Jamma
Date & Time:	5-7-23	Date & Time:		Date & Time:		Date & Time:	5/7/2023 1630
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	B 102190
Client Contact Name:	Ted Yip	Client Contact Name:	
E-mail:	tedyip.si@tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	Please refer to submission form

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH24 (25.0m)	Soil	6-7-23	11:00	1	✓	
2	AEDH24 (30.0m)	Soil	6-7-23	13:50	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Samma
Date & Time:	6-7-23 4:00	Date & Time:		Date & Time:		Date & Time:	6/7/2023 16:15
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

B 102195

ALS Technichem (HK) Pty Ltd

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer
Client Contact Name:	Ted Yip	Client Contact Name:	to submission
E-mail:	ted.yip.sic@tysan.com	E-mail:	form
Phone:	6156 7251	Phone:	
Report Address:	Please refer to submission form	Invoice Address:	

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH25 (0.50m)	Soil	19-7-23	11:30	1	✓	
2	AEDH25 (1.50m)	Soil	19-7-23	13:00	1	✓	
3	AEDH25 (3.00m)	Soil	19-7-23	14:15	1	✓	
4	AEDH25 (6.00m)	Soil	19-7-23	15:05	1	✓	
5	AEDH25 (10.00m)	Soil	19-7-23	15:55	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gemma
Date & Time:	19-7-23	Date & Time:		Date & Time:		Date & Time:	19/7/2023 16:57
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

B 102196

ALS Technichem (HK) Pty Ltd

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip.si@tysan.com
Phone:	6156 7251
Report Address:	Please refer to Submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	submission form
E-mail:	
Phone:	
Invoice Address:	

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH25 (15.0-15.45m)	Soil	20-7-23	10:45	1	✓	
2	AEDH25 (15.0-15.45m Duplicate)	Soil	20-7-23	10:50	1	✓	
3	AEDH25 (Equipment Blank)	water	20-7-23	10:55	1	✓	
~~4~~	~~AEDH25 (20.00-20.45m)~~	~~Soil~~	~~20-7-23~~		1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	William YK	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:	20-7-23	Date & Time:		Date & Time:		Date & Time:	20/7/2023 16:05
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	Please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	Submission form
E-mail:	ted.yip.sica tysan.com	E-mail:	
Phone:	Please refer to submission form	Phone:	
Report Address:		Invoice Address:	

B 102197

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no WD/2021/04 Advance Ground Investigation works for San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☐ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AED1425 (20.00m)	Soil	21-7-23	13:00	1	✓	
2	AED1425 (25.00m)	Soil	21-7-23	15:27	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Ip	Responsible Person:		Responsible Person:		Responsible Person:	Glen Cheung
Date & Time:	21-7-23	Date & Time:		Date & Time:		Date & Time:	21/7/2023 1610
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	tedyip.si@tysan.com
Phone:	6156 7251
Report Address:	Please refer to submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	Please refer to
E-mail:	Submission form
Phone:	
Invoice Address:	

B 102161

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works for Sun Tin / Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH26 (0.50m)	S	8-7-23	11:00	1	✓	
2	AEDH26 (1.50m)	S	8-7-23	11:30	1	✓	
3	AEDH26 (1.50m) (Duplicate)	S	8-7-23	11:30	1	✓	
4	Equipment blanks	W	8-7-23	11:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Ted Yip	Responsible Person:		Responsible Person:		Responsible Person:	Gary Cheng
Date & Time:		Date & Time:		Date & Time:		Date & Time:	8-7-2023 1240
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

B 102193

ALS Technichem (HK) Pty Ltd

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip@sica tysan.com
Phone:	6156 7251
Report Address:	Please refer to Submission Form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	
Client Contact Name:	Please refer
E-mail:	to Submission form
Phone:	
Invoice Address:	

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2023
Project Name / ID:	Contract No. ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH26 (3.00 m)	Soil	10-7-23	09:45	1	✓	
2	AEDH26 (6.00 m)	Soil	10-7-23	10:20	1	✓	
3	AEDH26 (10.00 m)	Soil	10-7-23	11:00	1	✓	
4	AEDH26 (15.00 m)	Soil	10-7-23	13:00	1	✓	
5	AEDH26 (20.00 m)	Soil	10-7-23	15:00	1	✓	
6	AEDH26 (25.00 m)	Soil	10-7-23	16:20	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS HK
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Kelia Lau
Date & Time:	10-7-23	Date & Time:		Date & Time:		Date & Time:	16:40 10-July-2023
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip.st@tysan.com
Phone:	6156 7251
Report Address:	Please refer to Submission Form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	Submission form
E-mail:	
Phone:	
Invoice Address:	

B 102192

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	~~Advance Ground~~ Contract No. ND/2021/04 Advance Ground Investigation For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Number of Containers	(✓) Tick the requested test	Remarks
1	AEDH 26 (30.00m)	Soil	11-7-23	10:15	1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Jamma
Date & Time:	11-7-23	Date & Time:		Date & Time:		Date & Time:	11/7/2023 1405
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information		Part 2: Billing Information for Invoice (If different from Reporting Information)	
Company Name:	Tysan Foundation Limited	Company Name:	please refer to
Client Contact Name:	Ted Yip	Client Contact Name:	submission form
E-mail:	tedyip.5@tysan.com	E-mail:	
Phone:	6156 7251	Phone:	
Report Address:	please refer to submission form	Invoice Address:	

B 102194

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information	
P.O. / Client Order No:	ALS Quotation No: HKE/1455/2022
Project Name / ID:	Contract no. ND/2021/04 Advance Ground Investigation Works for San Tin/Cok Ma Chau ~~Ground Investigation~~ ~~Works~~ Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☑ / Express (5) ☐ / Double Express (3) ☐ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☐ / Broken ☐ / Not Available ☑
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____ °C

Part 4: Test Required

Arsenic

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(✓) Tick the requested test	Remarks
1	AEDH29 (0.50m)	Soil	13-7-23	9:45	1	✓	
2	AEDH29 (1.50m)	Soil	13-7-23	11:15	1	✓	
3	AEDH29 (3.00m)	Soil	13-7-23	13:00	1	✓	
4	AEDH29 (6.00m)	Soil	13-7-23	13:40	1	✓	
5	AEDH29 (6.00m duplicate)	Soil	13-7-23	13:45	1	✓	
6	AEDH29 (10.00m)	Soil	13-7-23	14:15	1	✓	
7	AEDH29 (Equipment Blank)	Water	13-7-23	13:50	1	✓	
~~8~~	~~AEDH29 (Equipment Blank)~~	~~Soil~~	~~13-7-23~~		~~1~~	~~✓~~	
9							

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Brian Tse	Responsible Person:		Responsible Person:		Responsible Person:	Gary Chen
Date & Time:	13/7/23	Date & Time:		Date & Time:		Date & Time:	13/7/2023 1625
Signature:		Signature:		Signature:		Signature:	

CHAIN OF CUSTODY DOCUMENTATION (Failure to complete all sections of this form may delay analysis.)

Part 1: Reporting Information

Company Name:	Tysan Foundation Limited
Client Contact Name:	Ted Yip
E-mail:	ted.yip.5i@tysan.com
Phone:	6156 7251
Report Address:	Please refer to Submission form

Part 2: Billing Information for Invoice (If different from Reporting Information)

Company Name:	Please refer to
Client Contact Name:	submission form
E-mail:	
Phone:	
Invoice Address:	

B 102191

ALS Technichem (HK) Pty Ltd

Part 3: Project & Sample Information

P.O. / Client Order No:	ALS Quotation No: HKE/14557/22
Project Name / ID:	Contract no ND/2021/04 Advance Ground Investigation Works For San Tin/Lok Ma Chau Development Node
Site Name / ID:	
Service Request (Working Day):	Regular ☐ / Express (5) ☐ / Double Express (3) ☑ Others ☐ (Pls specify date required _____)
Cooler Security Seal:	Sealed ☑ / Broken ☐ / Not Available ☐
Package:	Cooler box ☑ / Carton box ☐ / Plastic bag ☐ / Others: (_____) ☐
Temperature Condition:	Chilled ☑ / Ambient ☐ / Frozen ☐ _____°C

Part 4: Test Required

As Rec'd

For ALS HK Workorder label use

ALS ID	Sample ID / Sample Name (This description will be appeared on report)	Matrix	Sampling Date	Sampling Time	Total nos of Containers	(√) Tick the requested test	Remarks
1	AEDH 29 (15.00m)	Soil	14/7/23	10:00	1	✓	
2	AEDH 29 (20.00m)	Soil	14/7/23	11:15	1	✓	
3	~~AEDH 29 (25.00m)~~	~~Soil~~	~~14/7/23~~		1	✓	
4	~~AEDH 29 (30.00m)~~	~~Soil~~	~~14/7/23~~		1	✓	

Part 5: Handling Information

Sampling Conducted by:		Sampling Supervised by:		Samples Picked up & Delivered By:		Samples Received by:	
Company Name:	Tysan	Company Name:		Company Name:		Company Name:	ALS
Responsible Person:	Chan Tse	Responsible Person:		Responsible Person:		Responsible Person:	
Date & Time:	14/7/23	Date & Time:		Date & Time:		Date & Time:	14/7/23 16:10
Signature:		Signature:		Signature:		Signature:	

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2247360
Address	: 20/F, ONE ISLAND SOUTH, 2 HEUNG YIP ROAD, WONG CHUK HANG, HONG KONG HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 28-Nov-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 06-Dec-2022
C-O-C number	: B101228			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 28-Nov-2022 to 06-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2247360

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH01 (0.5m)	EDH01 (1.5m)	EDH01 (3.0m)	----	----
			Sampling date / time	28-Nov-2022 11:30	28-Nov-2022 15:25	28-Nov-2022 16:00	----	----
Compound	CAS Number	LOR	Unit	HK2247360-001	HK2247360-002	HK2247360-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.0	15.0	11.4	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	1	215	157	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4745676)								
HK2246831-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.9	13.5	2.6
HK2246990-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.9	14.8	0.0
EG: Metals and Major Cations (QC Lot: 4737681)								
HK2247360-002	EDH01 (1.5m)	EG020: Arsenic	7440-38-2	1	mg/kg	215	252	15.9

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4737681)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4737681)										
HK2247360-001	EDH01 (0.5m)	EG020: Arsenic	7440-38-2	10 mg/kg	103	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 7
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2247522
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 29-Nov-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 08-Dec-2022
C-O-C number	: B101229			No. of samples received	: 7
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 7

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 29-Nov-2022 to 07-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2247522

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Sample ID	EDH01 (6.0m_Duplicate)	EDH01 (6.00m)	EDH01 (10.00m)	EDH01 (15.00m)	EDH01 (20.00m)
				Sampling date / time	29-Nov-2022 10:05	29-Nov-2022 10:05	29-Nov-2022 11:25	29-Nov-2022 14:14	29-Nov-2022 15:15
					HK2247522-002	HK2247522-003	HK2247522-004	HK2247522-005	HK2247522-006
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		28.5	28.9	17.5	22.3	10.2
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		29	25	1	1	3

Sub-Matrix: SOIL			Sample ID	EDH01 (25.00m)	----	----	----	----
			Sampling date / time	29-Nov-2022 16:15	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2247522-007	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.2	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	7	----	----	----	----

Sub-Matrix: WATER			Sample ID	Equipment Blank	----	----	----	----
			Sampling date / time	29-Nov-2022 09:30	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2247522-001	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered								
EG020: Arsenic	7440-38-2	10	µg/L	<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4745676)								
HK2246831-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.9	13.5	2.6
HK2246990-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.9	14.8	0.0
EG: Metals and Major Cations (QC Lot: 4737681)								
HK2247360-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	215	252	15.9

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 4737641)								
HK2247522-001	Equipment Blank	EG020: Arsenic	7440-38-2	1	µg/L	<10	<10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4737681)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4737641)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	105	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4737681)										
HK2247360-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	103	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4737641)										
HK2247512-001	Anonymous	EG020: Arsenic	7440-38-2	50 µg/L	103	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2247659
Address	: 20/F, ONE ISLAND SOUTH, 2 HEUNG YIP ROAD, WONG CHUK HANG, HONG KONG HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 30-Nov-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 09-Dec-2022
C-O-C number	: B101230			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

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Testing period is from 30-Nov-2022 to 08-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2247659

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH01 (30.00m)	EDH08 (0.50m)	EDH08 (1.50m)	EDH08 (3.00m)	----
			Sampling date / time	30-Nov-2022 10:25	30-Nov-2022 13:15	30-Nov-2022 14:45	30-Nov-2022 15:40	----
Compound	CAS Number	LOR	Unit	HK2247659-001	HK2247659-002	HK2247659-003	HK2247659-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.8	13.2	17.1	19.2	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	1	47	64	64	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4752047)								
HK2246299-021	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	48.5	47.8	1.4
HK2247659-004	EDH08 (3.00m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.2	19.2	0.0
EG: Metals and Major Cations (QC Lot: 4743444)								
HK2247659-002	EDH08 (0.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	47	51	8.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4743444)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	108	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4743444)										
HK2247659-001	EDH01 (30.00m)	EG020: Arsenic	7440-38-2	10 mg/kg	90.7	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2251810
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 30-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 11-Jan-2023
C-O-C number	: B101236			No. of samples received	: 5
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 5

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

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Testing period is from 30-Dec-2022 to 09-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2251810

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH02 (0.50m)	EDH02 (1.50m)	EDH02 (3.00m)	EDH02 (6.00m)	EDH02 (10.00m)
			Sampling date / time	30-Dec-2022 09:15	30-Dec-2022 09:45	30-Dec-2022 11:30	30-Dec-2022 13:45	30-Dec-2022 16:00
Compound	CAS Number	LOR	Unit	HK2251810-001	HK2251810-002	HK2251810-003	HK2251810-004	HK2251810-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.5	20.0	16.2	20.8	17.5
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	339	345	73	18	2

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4800212)								
HK2251156-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.9	15.4	3.6
HK2251255-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	52.5	52.3	0.5
EG: Metals and Major Cations (QC Lot: 4798811)								
HK2251810-002	EDH02 (1.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	345	306	12.1

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4798811)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	96.4	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4798811)										
HK2251810-001	EDH02 (0.50m)	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2251831
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 31-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 11-Jan-2023
C-O-C number	: B101239			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 31-Dec-2022 to 09-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2251831

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH02 (15.00m)	----	----	----	----
			Sampling date / time	31-Dec-2022 09:15	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2251831-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.3	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	1	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4800212)								
HK2251156-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.9	15.4	3.6
HK2251255-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	52.5	52.3	0.5
EG: Metals and Major Cations (QC Lot: 4798811)								
HK2251810-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	345	306	12.1

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4798811)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	96.4	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4798811)										
HK2251810-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2300146
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 03-Jan-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jan-2023
C-O-C number	: B100463			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 03-Jan-2023 to 11-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2300146

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH02 (20.0m)	----	----	----	----
			Sampling date / time	03-Jan-2023 15:30	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2300146-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.4	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	4	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4803574)								
HK2251678-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.6	21.3	1.3
HK2300145-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	6.9	7.1	2.5
EG: Metals and Major Cations (QC Lot: 4803670)								
HK2300145-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	82	99	18.9

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4803670)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	96.7	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4803670)										
HK2300145-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2301814
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 11-Jan-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 20-Jan-2023
C-O-C number	: B100465			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 11-Jan-2023 to 18-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2301814

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH03 (0.50m)	EDH03 (1.50m)	EDH03 (3.00m)	EDH03 (6.00m)	----
			Sampling date / time	11-Jan-2023 09:45	11-Jan-2023 11:00	11-Jan-2023 14:30	11-Jan-2023 15:50	----
Compound	CAS Number	LOR	Unit	HK2301814-001	HK2301814-002	HK2301814-003	HK2301814-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.8	30.6	28.2	20.0	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	104	59	43	30	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4813500)								
HK2301278-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	46.2	46.6	0.7
HK2302027-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	24.4	24.7	1.0
EG: Metals and Major Cations (QC Lot: 4811478)								
HK2301814-002	EDH03 (1.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	59	59	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4811478)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4811478)										
HK2301814-001	EDH03 (0.50m)	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2302048
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 12-Jan-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 26-Jan-2023
C-O-C number	: B100466			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Leung Chak Cheong , Mike	Assistant Manager - Metals	Metals_ENV, Kwai Tsing
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 12-Jan-2023 to 26-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2302048

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH03 (10.00m)	EDH03 (15.00m)	EDH03 (20.00m)	----	----
			Sampling date / time	12-Jan-2023 10:15	12-Jan-2023 13:45	12-Jan-2023 15:45	----	----
Compound	CAS Number	LOR	Unit	HK2302048-001	HK2302048-002	HK2302048-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	24.5	27.1	30.7	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	161	15	1140	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4817890)								
HK2302048-001	EDH03 (10.00m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	24.5	24.5	0.0
EG: Metals and Major Cations (QC Lot: 4816383)								
HK2301706-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	5	5	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4816383)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4816383)										
HK2301706-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	105	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2302279
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 13-Jan-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 27-Jan-2023
C-O-C number	: B100467			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Leung Chak Cheong , Mike	Assistant Manager - Metals	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 13-Jan-2023 to 20-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2302279

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH03 (25.00m)	EDH03 (30.00m)	----	----	----
			Sampling date / time	13-Jan-2023 10:15	13-Jan-2023 13:30	----	----	----
Compound	CAS Number	LOR	Unit	HK2302279-001	HK2302279-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	22.4	28.5	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	1090	946	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4821126)								
HK2301641-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	55.5	55.4	0.0
HK2301830-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	48.9	49.4	1.1
EG: Metals and Major Cations (QC Lot: 4816383)								
HK2301706-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	5	5	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4816383)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4816383)										
HK2301706-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	105	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2233830
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 26-Aug-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 06-Sep-2022
C-O-C number	: B 101224			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 26-Aug-2022 to 05-Sep-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2233830

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH04 (0.5m)	EDH04 (1.5m)	EDH04 (3.0m)	EDH04 (6.0m)	----
			Sampling date / time	26-Aug-2022 15:00	26-Aug-2022 15:30	26-Aug-2022 16:00	26-Aug-2022 16:15	----
Compound	CAS Number	LOR	Unit	HK2233830-001	HK2233830-002	HK2233830-003	HK2233830-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	8.1	16.6	14.8	14.7	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	5	121	57	70	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4548704)								
HK2233165-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	24.0	24.1	0.6
HK2233411-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	22.5	22.1	2.1
EA/ED: Physical and Aggregate Properties (QC Lot: 4548705)								
HK2233830-003	EDH04 (3.0m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	14.8	15.4	3.6
HK2233898-003	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	27.7	28.0	1.0
EG: Metals and Major Cations (QC Lot: 4552644)								
HK2233145-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	8	7	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4552644)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	100	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4552644)										
HK2233145-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	105	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2233896
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 27-Aug-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 05-Sep-2022
C-O-C number	: B101226			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 27-Aug-2022 to 05-Sep-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2233896

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH04 (10.0m)	----	----	----	----
			Sampling date / time	27-Aug-2022 10:00	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2233896-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	5.6	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	1	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4548705)								
HK2233830-003	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	14.8	15.4	3.6
HK2233898-003	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	27.7	28.0	1.0
EG: Metals and Major Cations (QC Lot: 4552644)								
HK2233145-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	8	7	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4552644)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	100	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4552644)										
HK2233145-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	105	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2234038
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 29-Aug-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 07-Sep-2022
C-O-C number	: B 101227			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

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Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2234038

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH04 (15.0m)	EDH04 (20.0m)	EDH04 (25.0m)	EDH04 (30.0m)	----
			Sampling date / time	29-Aug-2022 09:30	29-Aug-2022 11:00	29-Aug-2022 11:50	29-Aug-2022 14:15	----
Compound	CAS Number	LOR	Unit	HK2234038-001	HK2234038-002	HK2234038-003	HK2234038-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.2	16.9	17.2	14.2	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	2	12	8	10	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4551228)								
HK2234154-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	17.2	17.2	0.0
HK2234038-003	EDH04 (25.0m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	17.2	16.9	2.0
EG: Metals and Major Cations (QC Lot: 4552644)								
HK2233145-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	8	7	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4552644)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	100	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4552644)										
HK2233145-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	105	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2232309
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 16-Aug-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 25-Aug-2022
C-O-C number	: B101221			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 16-Aug-2022 to 24-Aug-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2232309

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH05 (0.5m)	EDH05 (1.5m)	EDH05 (3.0m)	----	----
			Sampling date / time	16-Aug-2022 11:30	16-Aug-2022 14:00	16-Aug-2022 14:30	----	----
Compound	CAS Number	LOR	Unit	HK2232309-001	HK2232309-002	HK2232309-003	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	22.6	22.3	20.4	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	198	178	163	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4526616)								
HK2231868-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	34.1	34.7	1.7
HK2232312-014	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	67.4	67.2	0.3
EG: Metals and Major Cations (QC Lot: 4526713)								
HK2232309-002	EDH05 (1.5m)	**EG020: Arsenic**	7440-38-2	1	mg/kg	178	169	5.2

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4526713)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4526713)										
HK2232309-001	EDH05 (0.5m)	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2232545
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 17-Aug-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 26-Aug-2022
C-O-C number	: B 101222			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 17-Aug-2022 to 26-Aug-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2232545

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH05 (6.0m)	EDH05 (10.0m)	EDH05 (15.0m)	----	----
			Sampling date / time	17-Aug-2022 09:30	17-Aug-2022 14:00	17-Aug-2022 15:30	----	----
Compound	CAS Number	LOR	Unit	HK2232545-001	HK2232545-002	HK2232545-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.6	19.6	30.8	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	196	16	30	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4526617)								
HK2232361-009	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	28.4	28.3	0.4
HK2232361-012	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	24.2	24.8	2.2
EG: Metals and Major Cations (QC Lot: 4526715)								
HK2231868-001	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	18	20	8.8

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4526715)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	102	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4526715)										
HK2231780-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	112	----	75.0	125	----	----

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2232681
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 18-Aug-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 29-Aug-2022
C-O-C number	: B 101223			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 18-Aug-2022 to 24-Aug-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2232681

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH05 (20.0m)	EDH05 (25.0m)	EDH05 (30.0m)	----	----
			Sampling date / time	18-Aug-2022 09:30	18-Aug-2022 11:30	18-Aug-2022 12:30	----	----
Compound	CAS Number	LOR	Unit	HK2232681-001	HK2232681-002	HK2232681-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.0	11.1	13.1	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	73	20	57	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4529453)								
HK2232513-004	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.1	18.8	1.3
EG: Metals and Major Cations (QC Lot: 4529607)								
HK2232513-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	87	69	23.2

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4529607)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	109	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4529607)										
HK2232513-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	90.3	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 6
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2249394
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 09-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 20-Dec-2022
C-O-C number	: S100501			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 09-Dec-2022 to 16-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2249394

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH06 (0.50m)	EDH06 (0.50m) (Duplicate)	EDH06 (1.50m)	EDH06 (3.00m)	EDH06 (6.00m)
			Sampling date / time	09-Dec-2022 09:00	09-Dec-2022 09:00	09-Dec-2022 11:00	09-Dec-2022 13:30	09-Dec-2022 15:05
Compound	CAS Number	LOR	Unit	HK2249394-002	HK2249394-003	HK2249394-004	HK2249394-005	HK2249394-006
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.7	13.6	13.4	18.1	13.5
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	276	251	297	608	8

Sub-Matrix: WATER				Sample ID	Equipment Blank Bottle	----	----	----	----
				Sampling date / time	09-Dec-2022 08:50	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2249394-001	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4770782)								
HK2248360-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	38.6	39.0	1.0
HK2248514-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	22.3	22.2	0.5
EG: Metals and Major Cations (QC Lot: 4769580)								
HK2248716-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	10	10	0.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 4764805)								
HK2249679-003	Anonymous	EG020: Arsenic	7440-38-2	1	µg/L	<10	<10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4769580)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4764805)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	97.4	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4769580)										
HK2248716-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	110	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4764805)										
HK2249394-001	Equipment Blank Bottle	EG020: Arsenic	7440-38-2	50 µg/L	97.4	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2249515
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 10-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 20-Dec-2022
C-O-C number	: S100502			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 10-Dec-2022 to 16-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2249515

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH06 (10.0m)	EDH06 (15.0m)	----	----	----
			Sampling date / time	10-Dec-2022 09:00	10-Dec-2022 10:45	----	----	----
Compound	CAS Number	LOR	Unit	HK2249515-001	HK2249515-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.6	15.1	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	3	179	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4770783)								
HK2249515-002	EDH06 (15.0m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	15.1	14.8	2.1
EG: Metals and Major Cations (QC Lot: 4769580)								
HK2248716-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	10	10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4769580)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4769580)										
HK2248716-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	110	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2249641
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 12-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 21-Dec-2022
C-O-C number	: B101234			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 12-Dec-2022 to 19-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2249641

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Sample ID	EDH06 (20.0m)	EDH06 (25.0m)	EDH06 (30.0m)	----	----
				Sampling date / time	12-Dec-2022 09:40	12-Dec-2022 10:30	12-Dec-2022 11:30	----	----
					HK2249641-001	HK2249641-002	HK2249641-003	--------	--------
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		17.2	17.7	18.1	----	----
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		77	85	42	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4772850)								
HK2248905-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.6	11.6	0.0
HK2249867-004	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	22.6	22.6	0.0
EG: Metals and Major Cations (QC Lot: 4769580)								
HK2248716-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	10	10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4769580)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4769580)										
HK2248716-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	110	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 5
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2248371
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 05-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 14-Dec-2022
C-O-C number	: B101233			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 05-Dec-2022 to 14-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2248371

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH07 (0.50m)	EDH07 (1.50m)	EDH07 (3.00m)	EDH07 (6.00m)	EDH07 (10.00m)
			Sampling date / time	05-Dec-2022 09:30	05-Dec-2022 10:45	05-Dec-2022 11:25	05-Dec-2022 14:00	05-Dec-2022 14:45
Compound	CAS Number	LOR	Unit	HK2248371-001	HK2248371-002	HK2248371-003	HK2248371-004	HK2248371-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	6.0	19.0	18.7	30.0	26.1
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	8	56	39	450	268

Sub-Matrix: SOIL			Sample ID	EDH07 (15.00m)	----	----	----	----
			Sampling date / time	05-Dec-2022 15:30	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2248371-006	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	23.0	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	126	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4761864)								
HK2247662-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	42.3	42.3	0.0
HK2247665-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	36.4	36.3	0.0
EG: Metals and Major Cations (QC Lot: 4752312)								
HK2248156-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	4	4	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4752312)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4752312)										
HK2248156-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	95.2	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2248634
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 06-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 21-Dec-2022
C-O-C number	: B101235			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 06-Dec-2022 to 15-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2248634

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH07 (20.0 - 20.50m)	EDH07 (25.0 - 25.50m)	EDH07 (30.0 - 30.50m)	----	----
			Sampling date / time	06-Dec-2022 10:00	06-Dec-2022 11:10	06-Dec-2022 15:15	----	----
Compound	CAS Number	LOR	Unit	HK2248634-001	HK2248634-002	HK2248634-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.7	17.4	15.2	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	80	332	408	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4767709)								
HK2248206-004	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	23.8	23.9	0.0
HK2249865-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.6	10.8	1.5
EG: Metals and Major Cations (QC Lot: 4752311)								
HK2248206-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	6	6	0.0
EG: Metals and Major Cations (QC Lot: 4752312)								
HK2248156-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	4	4	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4752311)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----
EG: Metals and Major Cations (QC Lot: 4752312)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4752311)										
HK2248206-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	91.7	----	75.0	125	----	----
EG: Metals and Major Cations (QC Lot: 4752312)										
HK2248156-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	95.2	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2247873
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 01-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Dec-2022
C-O-C number	: B101231			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 01-Dec-2022 to 09-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2247873

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH08 (6.00m)	EDH08 (10.00m)	EDH08 (15.00m)	----	----
			Sampling date / time	01-Dec-2022 09:30	01-Dec-2022 14:00	01-Dec-2022 15:15	----	----
Compound	CAS Number	LOR	Unit	HK2247873-001	HK2247873-002	HK2247873-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.7	14.9	12.6	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	180	1060	40	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4752047)								
HK2246299-021	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	48.5	47.8	1.4
HK2247659-004	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.2	19.2	0.0
EG: Metals and Major Cations (QC Lot: 4743444)								
HK2247659-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	47	51	8.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4743444)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	108	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4743444)										
HK2247659-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	90.7	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2248074
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 02-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 14-Dec-2022
C-O-C number	: B101232			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 02-Dec-2022 to 12-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2248074

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH08 (20.00m)	EDH08 (25.00m)	EDH08 (30.00m)	----	----
			Sampling date / time	02-Dec-2022 09:30	02-Dec-2022 10:45	02-Dec-2022 13:45	----	----
Compound	CAS Number	LOR	Unit	HK2248074-001	HK2248074-002	HK2248074-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.6	13.2	14.3	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	51	97	42	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4755041)								
HK2246498-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	38.1	38.2	0.5
HK2246498-011	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	27.6	28.4	2.9
EG: Metals and Major Cations (QC Lot: 4746926)								
HK2247693-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	<1	<1	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4746926)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4746926)										
HK2247693-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	102	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 6
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2251832
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 31-Dec-2022
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 11-Jan-2023
C-O-C number	: B101238			No. of samples received	: 5
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 5

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 31-Dec-2022 to 09-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2251832

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH09 (0.5m)	EDH09 (1.5m)	EDH09 (1.5m Dup)	EDH09 (3.0m)	----
			Sampling date / time	31-Dec-2022 10:30	31-Dec-2022 10:35	31-Dec-2022 10:35	31-Dec-2022 11:00	----
Compound	CAS Number	LOR	Unit	HK2251832-001	HK2251832-002	HK2251832-003	HK2251832-005	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.5	28.4	29.2	27.3	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	25	12	12	17	----

Sub-Matrix: WATER				Sample ID	EDH09 (Equ blank)	----	----	----	----
				Sampling date / time	31-Dec-2022 10:45	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2251832-004	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4800212)								
HK2251156-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.9	15.4	3.6
HK2251255-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	52.5	52.3	0.5
EA/ED: Physical and Aggregate Properties (QC Lot: 4800213)								
HK2251832-005	EDH09 (3.0m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	27.3	27.6	1.0
EG: Metals and Major Cations (QC Lot: 4798811)								
HK2251810-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	345	306	12.1

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 4798819)								
HK2251812-001	Anonymous	EG020: Arsenic	7440-38-2	1	µg/L	<10	<10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4798811)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	96.4	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4798819)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	97.9	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4798811)										
HK2251810-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4798819)										
HK2251811-001	Anonymous	**EG020: Arsenic**	7440-38-2	50 µg/L	101	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2300145
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 03-Jan-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jan-2023
C-O-C number	: B101240			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 03-Jan-2023 to 11-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2300145

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH09 (6.00m)	EDH09 (10.00m)	EDH09 (15.00m)	EDH09 (20.00m)	----
			Sampling date / time	03-Jan-2023 10:30	03-Jan-2023 13:45	03-Jan-2023 15:05	03-Jan-2023 16:05	----
Compound	CAS Number	LOR	Unit	HK2300145-001	HK2300145-002	HK2300145-003	HK2300145-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.3	6.9	13.9	12.7	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	76	82	20	5	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4803574)								
HK2251678-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.6	21.3	1.3
HK2300145-002	EDH09 (10.00m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	6.9	7.1	2.5
EG: Metals and Major Cations (QC Lot: 4803670)								
HK2300145-002	EDH09 (10.00m)	EG020: Arsenic	7440-38-2	1	mg/kg	82	99	18.9

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4803670)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	96.7	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4803670)										
HK2300145-001	EDH09 (6.00m)	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2300440
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 04-Jan-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jan-2023
C-O-C number	: B100464			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Manager - Inorganics	Inorganics, Kwai Tsing
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 04-Jan-2023 to 11-Jan-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2300440

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	EDH09 (25.00m)	EDH09 (30.00m)	----	----	----
			Sampling date / time	04-Jan-2023 10:30	04-Jan-2023 11:45	----	----	----
Compound	CAS Number	LOR	Unit	HK2300440-001	HK2300440-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.3	14.0	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	72	129	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4803574)								
HK2251678-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.6	21.3	1.3
HK2300145-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	6.9	7.1	2.5
EG: Metals and Major Cations (QC Lot: 4803670)								
HK2300145-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	82	99	18.9

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4803670)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	96.7	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 4803670)										
HK2300145-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 5
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2325099
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 28-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 07-Jul-2023
C-O-C number	: B102187			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 28-Jun-2023 to 05-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2325099

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH01 (0.50m)	AEDH01 (1.50m)	AEDH01 (3.00m)	AEDH01 (6.00m)	AEDH01 (10.00m)
			Sampling date / time	28-Jun-2023 09:45	28-Jun-2023 10:15	28-Jun-2023 10:50	28-Jun-2023 13:00	28-Jun-2023 14:15
Compound	CAS Number	LOR	Unit	HK2325099-001	HK2325099-002	HK2325099-003	HK2325099-004	HK2325099-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.9	11.1	11.1	29.7	24.0
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	25	6	20	12	<1

Sub-Matrix: SOIL				Sample ID	AEDH01 (15.00m)	----	----	----	----
				Sampling date / time	28-Jun-2023 14:45	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2325099-006	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		15.2	----	----	----	----
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		1	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5150132)								
HK2324588-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.6	10.7	0.0
HK2324762-004	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.0	8.8	3.1
EG: Metals and Major Cations (QC Lot: 5144833)								
HK2325099-002	AEDH01 (1.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	6	6	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5144833)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5144833)										
HK2325099-001	AEDH01 (0.50m)	EG020: Arsenic	7440-38-2	10 mg/kg	87.6	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2325212
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 29-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 10-Jul-2023
C-O-C number	: B102188			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 29-Jun-2023 to 05-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2325212

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH01 (20.00m)	----	----	----	----
			Sampling date / time	29-Jun-2023 10:45	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2325212-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.3	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	<1	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5150132)								
HK2324588-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.6	10.7	0.0
HK2324762-004	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.0	8.8	3.1
EG: Metals and Major Cations (QC Lot: 5144833)								
HK2325099-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	6	6	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5144833)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5144833)										
HK2325099-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	87.6	----	75.0	125	----	----

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 7
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2324517
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 23-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 04-Jul-2023
C-O-C number	: B100480			No. of samples received	: 8
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 8

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 23-Jun-2023 to 30-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2324517

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH03 (0.50m)	AEDH03 (1.50m)	AEDH03 (3.00m)	AEDH03 (6.00m)	AEDH03 (10.00m)
			Sampling date / time	23-Jun-2023 09:30	23-Jun-2023 10:15	23-Jun-2023 10:45	23-Jun-2023 12:00	23-Jun-2023 12:30
Compound	CAS Number	LOR	Unit	HK2324517-001	HK2324517-002	HK2324517-003	HK2324517-004	HK2324517-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.6	43.9	29.9	17.0	18.3
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	16	86	25	7	15

Sub-Matrix: SOIL				Sample ID	AEDH03 (10.00m) Duplicate	AEDH03 (15.00m)	----	----	----
				Sampling date / time	23-Jun-2023 12:35	23-Jun-2023 13:45	----	----	----
Compound	CAS Number	LOR	Unit		HK2324517-006	HK2324517-008	-------	-------	-------
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		18.6	24.2	----	----	----
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		16	16	----	----	----

Sub-Matrix: WATER				Sample ID	AEDH03 Equipment Blank	----	----	----	----
				Sampling date / time	23-Jun-2023 12:40	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2324517-007	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5133584)								
HK2324456-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	52.9	52.9	0.0
HK2324517-002	AEDH03 (1.50m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	43.9	43.8	0.0
EG: Metals and Major Cations (QC Lot: 5133777)								
HK2324517-002	AEDH03 (1.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	86	90	5.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 5133731)								
HK2324572-024	Anonymous	EG020: Arsenic	7440-38-2	1	µg/L	<10	<10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5133777)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	95.7	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5133731)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	103	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report											
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number		MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5133777)										
HK2324517-001	AEDH03 (0.50m)	EG020: Arsenic	7440-38-2	10 mg/kg	118	----	75.0	125	----	----

Matrix: **WATER**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report											
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number		MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5133731)										
HK2324517-007	AEDH03 Equipment Blank	EG020: Arsenic	7440-38-2	50 µg/L	105	----	75.0	125	----	----

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CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2324624
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 24-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 04-Jul-2023
C-O-C number	: B102185			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 24-Jun-2023 to 30-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2324624

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH03 (20.00m)	AEDH03 (25.00m)	----	----	----
			Sampling date / time	24-Jun-2023 11:02	24-Jun-2023 12:00	----	----	----
Compound	CAS Number	LOR	Unit	HK2324624-001	HK2324624-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.2	19.5	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	7	3	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5136280)								
HK2323928-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	39.6	39.4	0.3
HK2324624-002	AEDH03 (25.00m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.5	19.5	0.0
EG: Metals and Major Cations (QC Lot: 5133777)								
HK2324517-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	86	90	5.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5133777)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	95.7	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5133777)										
HK2324517-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	118	----	75.0	125	----	----

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2324726
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 26-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 06-Jul-2023
C-O-C number	: B102186			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 26-Jun-2023 to 06-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2324726

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH03 (30.00m)	----	----	----	----
			Sampling date / time	26-Jun-2023 11:10	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2324726-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.8	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	3	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5136280)								
HK2323928-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	39.6	39.4	0.3
HK2324624-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.5	19.5	0.0
EG: Metals and Major Cations (QC Lot: 5136438)								
HK2324726-001	AEDH03 (30.00m)	EG020: Arsenic	7440-38-2	1	mg/kg	3	4	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5136438)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	98.0	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5136438)										
HK2324596-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	99.4	----	75.0	125	----	----

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2320671
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 29-May-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 09-Jun-2023
C-O-C number	: B102183			No. of samples received	: 5
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 5

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 29-May-2023 to 02-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2320671

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH10 (0.50m)	AEDH10 (1.50m)	AEDH10 (3.00m)	AEDH10 (6.00m)	AEDH10 (10.00m)
			Sampling date / time	29-May-2023 10:30	29-May-2023 10:45	29-May-2023 11:15	29-May-2023 13:30	29-May-2023 14:30
Compound	CAS Number	LOR	Unit	HK2320671-001	HK2320671-002	HK2320671-003	HK2320671-004	HK2320671-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.8	16.0	16.4	9.9	26.7
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	596	822	946	65	382

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5081051)								
HK2320671-001	AEDH10 (0.50m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	10.8	10.8	0.0
HK2320671-003	AEDH10 (3.00m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.4	17.2	4.3
EG: Metals and Major Cations (QC Lot: 5082135)								
HK2320666-001	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	294	252	15.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5082135)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5082135)										
HK2320699-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	95.1	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2320827
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 30-May-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 07-Jun-2023
C-O-C number	: B102182			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 30-May-2023 to 07-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2320827

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH10 (15.00m)	AEDH10 (20.00m)	AEDH10 (25.00m)	AEDH10 (30.00m)	----
			Sampling date / time	30-May-2023 09:15	30-May-2023 11:00	30-May-2023 11:45	30-May-2023 15:15	----
Compound	CAS Number	LOR	Unit	HK2320827-001	HK2320827-002	HK2320827-003	HK2320827-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.6	16.5	16.1	14.7	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	238	336	113	89	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5083235)								
HK2320754-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	25.8	26.0	0.5
HK2319945-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	26.1	25.9	0.5
EG: Metals and Major Cations (QC Lot: 5086223)								
HK2320827-002	AEDH10 (20.00m)	EG020: Arsenic	7440-38-2	1	mg/kg	336	356	5.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5086223)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	89.6	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5086223)										
HK2320827-001	AEDH10 (15.00m)	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 5
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2320666
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 29-May-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 09-Jun-2023
C-O-C number	: B102181			No. of samples received	: 7
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 7

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

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Testing period is from 29-May-2023 to 02-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2320666

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Sample ID	AEDH11 (0.50m)	AEDH11 (1.50m)	AEDH11 (3.00m)	AEDH11 (6.00m)	AEDH11 (10.00m)
				Sampling date / time	29-May-2023 10:00	29-May-2023 10:15	29-May-2023 10:30	29-May-2023 11:15	29-May-2023 12:00
					HK2320666-001	HK2320666-002	HK2320666-003	HK2320666-004	HK2320666-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		11.5	16.4	21.3	19.5	19.9
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		294	584	20	11	26

Sub-Matrix: SOIL			Sample ID	AEDH11 (15.00m)	AEDH11 (20.00m)	----	----	----
			Sampling date / time	29-May-2023 14:45	29-May-2023 15:30	----	----	----
Compound	CAS Number	LOR	Unit	HK2320666-006	HK2320666-007	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.4	13.1	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	77	112	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5081051)								
HK2320671-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.8	10.8	0.0
HK2320671-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.4	17.2	4.3
EG: Metals and Major Cations (QC Lot: 5082135)								
HK2320666-001	AEDH11 (0.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	294	252	15.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5082135)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5082135)										
HK2320699-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	95.1	----	75.0	125	----	----

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2320828
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 30-May-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 08-Jun-2023
C-O-C number	: B102184			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

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Testing period is from 30-May-2023 to 08-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2320828

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH11 (25.00m)	AEDH11 (30.00m)	----	----	----
			Sampling date / time	30-May-2023 13:00	30-May-2023 14:45	----	----	----
Compound	CAS Number	LOR	Unit	HK2320828-001	HK2320828-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	4.6	12.3	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	564	183	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5083235)								
HK2320754-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	25.8	26.0	0.5
HK2319945-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	26.1	25.9	0.5
EG: Metals and Major Cations (QC Lot: 5086223)								
HK2320827-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	336	356	5.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5086223)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	89.6	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5086223)										
HK2320827-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2321437
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 02-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jun-2023
C-O-C number	: B100470			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

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Testing period is from 02-Jun-2023 to 09-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2321437

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH12 (0.50m)	AEDH12 (1.50m)	AEDH12 (3.00m)	AEDH12 (6.00m)	----
			Sampling date / time	02-Jun-2023 10:45	02-Jun-2023 11:05	02-Jun-2023 14:30	02-Jun-2023 15:10	----
Compound	CAS Number	LOR	Unit	HK2321437-001	HK2321437-002	HK2321437-003	HK2321437-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.5	15.4	10.7	16.9	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	57	70	61	2	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5098549)								
HK2321437-001	AEDH12 (0.50m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	12.5	12.4	1.2
EG: Metals and Major Cations (QC Lot: 5099941)								
HK2321145-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	116	130	11.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)										
HK2321145-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2321519
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 03-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jun-2023
C-O-C number	: B100471			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

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Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

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Testing period is from 03-Jun-2023 to 09-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2321519

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH12 (10.00m)	----	----	----	----
			Sampling date / time	03-Jun-2023 11:00	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2321519-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.6	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	194	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5098549)								
HK2321437-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.5	12.4	1.2
EG: Metals and Major Cations (QC Lot: 5099941)								
HK2321145-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	116	130	11.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: SOIL

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)										
HK2321145-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2321667
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 05-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 14-Jun-2023
C-O-C number	: B100473			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 05-Jun-2023 to 13-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2321667

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH12 (15.00m)	AEDH12 (20.00m)	AEDH12 (25.00m)	AEDH12 (30.00m)	----
			Sampling date / time	05-Jun-2023 11:00	05-Jun-2023 13:00	05-Jun-2023 14:00	05-Jun-2023 15:15	----
Compound	CAS Number	LOR	Unit	HK2321667-001	HK2321667-002	HK2321667-003	HK2321667-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	22.2	19.9	17.7	19.6	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	238	236	230	215	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5105218)								
HK2321391-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	48.4	47.4	2.2
HK2321667-002	AEDH12 (20.00m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.9	19.9	0.0
EG: Metals and Major Cations (QC Lot: 5096782)								
HK2321361-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	13	12	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5096782)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	102	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5096782)										
HK2321361-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	94.2	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

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ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 6
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2321145
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 01-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jun-2023
C-O-C number	: B100468			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 01-Jun-2023 to 10-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2321145

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH13 (0.50m)	AEDH13 (1.50m)	AEDH13 (3.00m)	AEDH13 (1.50m Duplicate)	AEDH13 (6.00m)
			Sampling date / time	01-Jun-2023 14:00	01-Jun-2023 14:20	01-Jun-2023 14:40	01-Jun-2023 14:20	01-Jun-2023 16:00
Compound	CAS Number	LOR	Unit	HK2321145-001	HK2321145-002	HK2321145-003	HK2321145-004	HK2321145-006
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.7	21.0	15.3	13.8	11.3
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	53	116	335	48	9

Sub-Matrix: WATER				Sample ID	AEDH13 (Equipment Blank)	----	----	----	----
				Sampling date / time	01-Jun-2023 14:20	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2321145-005	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5091716)								
HK2320080-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.7	16.7	0.0
HK2321145-002	AEDH13 (1.50m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.0	20.8	0.6
EG: Metals and Major Cations (QC Lot: 5099941)								
HK2321145-002	AEDH13 (1.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	116	130	11.3

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 5088828)								
HK2321145-005	AEDH13 (Equipment Blank)	EG020: Arsenic	7440-38-2	1	µg/L	<10	<10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5088828)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	99.1	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)										
HK2321145-001	AEDH13 (0.50m)	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5088828)										
HK2320845-006	Anonymous	**EG020: Arsenic**	7440-38-2	50 µg/L	103	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2321440
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 02-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 12-Jun-2023
C-O-C number	: B100469			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 02-Jun-2023 to 09-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2321440

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH13 (10.00m)	AEDH13 (15.00m)	----	----	----
			Sampling date / time	02-Jun-2023 11:00	02-Jun-2023 11:50	----	----	----
Compound	CAS Number	LOR	Unit	HK2321440-001	HK2321440-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.0	18.3	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	238	254	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5098549)								
HK2321437-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	12.5	12.4	1.2
EG: Metals and Major Cations (QC Lot: 5099941)								
HK2321145-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	116	130	11.3

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	104	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5099941)										
HK2321145-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2321663
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 05-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 14-Jun-2023
C-O-C number	: B100472			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Environmental	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 05-Jun-2023 to 13-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2321663

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH13 (20.00m)	AEDH13 (25.00m)	AEDH13 (30.00m)	----	----
			Sampling date / time	05-Jun-2023 10:00	05-Jun-2023 11:15	05-Jun-2023 14:15	----	----
Compound	CAS Number	LOR	Unit	HK2321663-001	HK2321663-002	HK2321663-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.0	15.7	20.4	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	399	175	198	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5105218)								
HK2321391-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	48.4	47.4	2.2
HK2321667-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.9	19.9	0.0
EG: Metals and Major Cations (QC Lot: 5096782)								
HK2321361-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	13	12	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5096782)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	102	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5096782)										
HK2321361-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	94.2	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

HOKLAS 066 TEST

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 6
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2322623
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 09-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 21-Jun-2023
C-O-C number	: B100474			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 09-Jun-2023 to 16-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2322623

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Sample ID	AEDH14 (0.50m)	AEDH14 (1.50m)	AEDH14 (3.00m)	AEDH14 (6.00m)	AEDH14 (6.00m Duplicate)
				Sampling date / time	09-Jun-2023 14:00	09-Jun-2023 14:05	09-Jun-2023 14:35	09-Jun-2023 15:30	09-Jun-2023 15:35
					HK2322623-001	HK2322623-002	HK2322623-003	HK2322623-004	HK2322623-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		16.1	17.7	19.4	14.0	13.6
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		68	148	238	17	14

Sub-Matrix: WATER				Sample ID	AEDH14 (Equipment blank)	----	----	----	----
				Sampling date / time	09-Jun-2023 15:40	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2322623-006	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5109921)								
HK2321871-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	51.3	51.2	0.3
HK2322093-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	23.3	23.0	1.5
EG: Metals and Major Cations (QC Lot: 5105474)								
HK2322184-001	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	1	1	0.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 5105462)								
HK2322624-001	Anonymous	EG020: Arsenic	7440-38-2	1	µg/L	<1	<1	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5105474)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5105462)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	100	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5105474)										
HK2322180-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	105	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5105462)										
HK2322623-006	AEDH14 (Equipment blank)	**EG020: Arsenic**	7440-38-2	50 µg/L	97.3	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2322678
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 10-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 26-Jun-2023
C-O-C number	: B100476			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 10-Jun-2023 to 21-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2322678

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH14 (10.0m)	----	----	----	----
			Sampling date / time	10-Jun-2023 10:35	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2322678-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.4	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	17	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5121805)								
HK2322535-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	46.7	46.0	1.6
HK2322598-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.2	12.1	0.0
EG: Metals and Major Cations (QC Lot: 5105430)								
HK2322474-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	2	<2	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5105430)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5105430)										
HK2322474-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	104	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2322770
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 12-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 21-Jun-2023
C-O-C number	: B100477			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 12-Jun-2023 to 21-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2322770

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH14 (15.00m)	AEDH14 (20.00m)	AEDH14 (25.00m)	AEDH14 (30.00m)	----
			Sampling date / time	12-Jun-2023 09:30	12-Jun-2023 10:15	12-Jun-2023 11:10	12-Jun-2023 13:15	----
Compound	CAS Number	LOR	Unit	HK2322770-001	HK2322770-002	HK2322770-003	HK2322770-004	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.9	18.0	20.8	17.7	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	97	92	195	100	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5112849)								
HK2322140-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	25.9	26.0	0.5
HK2323193-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.9	14.0	0.9
EG: Metals and Major Cations (QC Lot: 5110021)								
HK2322770-002	AEDH14 (20.00m)	EG020: Arsenic	7440-38-2	1	mg/kg	92	98	6.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5110021)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	105	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5110021)										
HK2322770-001	AEDH14 (15.00m)	EG020: Arsenic	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 5
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2323726
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 16-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 29-Jun-2023
C-O-C number	: B100475			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

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Testing period is from 16-Jun-2023 to 26-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2323726

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Sample ID	AEDH23 (0.50m)	AEDH23 (1.50m)	AEDH23 (3.00m)	AEDH23 (6.00m)	AEDH23 (10.00m)
				Sampling date / time	16-Jun-2023 09:30	16-Jun-2023 09:45	16-Jun-2023 10:45	16-Jun-2023 11:40	16-Jun-2023 13:30
					HK2323726-001	HK2323726-002	HK2323726-003	HK2323726-004	HK2323726-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		16.3	15.1	24.9	14.6	16.9
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		92	70	15	10	23

Sub-Matrix: SOIL			Sample ID	AEDH23 (15.00m)	----	----	----	----
			Sampling date / time	16-Jun-2023 14:00	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2323726-006	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.2	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	67	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5124470)								
HK2323012-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.0	14.2	0.9
HK2323290-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	34.0	34.2	0.8
EG: Metals and Major Cations (QC Lot: 5121825)								
HK2323726-001	AEDH23 (0.50m)	EG020: Arsenic	7440-38-2	1	mg/kg	92	78	15.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5121825)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	99.3	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5121825)										
HK2323397-011	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	106	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2323839
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 17-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 29-Jun-2023
C-O-C number	: B100478			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 17-Jun-2023 to 26-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2323839

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH23 (20.00m)	AEDH23 (25.00m)	----	----	----
			Sampling date / time	17-Jun-2023 10:15	17-Jun-2023 12:00	----	----	----
Compound	CAS Number	LOR	Unit	HK2323839-001	HK2323839-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.6	14.4	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	44	107	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5124470)								
HK2323012-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.0	14.2	0.9
HK2323290-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	34.0	34.2	0.8
EA/ED: Physical and Aggregate Properties (QC Lot: 5124471)								
HK2323914-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.2	13.4	1.0
EG: Metals and Major Cations (QC Lot: 5121825)								
HK2323726-001	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	92	78	15.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5121825)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	99.3	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5121825)										
HK2323397-011	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	106	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2323914
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 19-Jun-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 29-Jun-2023
C-O-C number	: B100479			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 19-Jun-2023 to 26-Jun-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2323914

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH23 (30.00m)	----	----	----	----
			Sampling date / time	19-Jun-2023 10:30	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2323914-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.2	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	33	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5124471)								
HK2323914-001	AEDH23 (30.00m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	13.2	13.4	1.0
EG: Metals and Major Cations (QC Lot: 5121825)								
HK2323726-001	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	92	78	15.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5121825)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	99.3	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5121825)										
HK2323397-011	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	106	----	75.0	125	----	----

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 5
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2326088
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 05-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 14-Jul-2023
C-O-C number	: B102189			No. of samples received	: 7
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 7

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 05-Jul-2023 to 13-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2326088

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Sample ID	AEDH24 (0.50m)	AEDH24 (1.50m)	AEDH24 (3.00m)	AEDH24 (6.00m)	AEDH24 (10.00m)
				Sampling date / time	05-Jul-2023 10:00	05-Jul-2023 10:15	05-Jul-2023 10:30	05-Jul-2023 10:50	05-Jul-2023 11:50
					HK2326088-001	HK2326088-002	HK2326088-003	HK2326088-004	HK2326088-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		23.3	20.2	23.4	18.7	12.3
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		17	131	65	194	333

Sub-Matrix: SOIL			Sample ID	AEDH24 (15.00m)	AEDH24 (20.00m)	----	----	----
			Sampling date / time	05-Jul-2023 13:30	05-Jul-2023 15:45	----	----	----
Compound	CAS Number	LOR	Unit	HK2326088-006	HK2326088-007	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.3	16.6	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	131	19	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5167799)								
HK2326088-002	AEDH24 (1.50m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	20.2	20.1	0.0
HK2326088-007	AEDH24 (20.00m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.6	16.6	0.0
EG: Metals and Major Cations (QC Lot: 5155963)								
HK2326088-002	AEDH24 (1.50m)	**EG020: Arsenic**	7440-38-2	1	mg/kg	131	111	16.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5155963)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	100	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5155963)										
HK2326088-001	AEDH24 (0.50m)	**EG020: Arsenic**	7440-38-2	10 mg/kg	79.9	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2326347
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 06-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 18-Jul-2023
C-O-C number	: B102190			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 06-Jul-2023 to 18-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2326347

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH24 (25.0m)	AEDH24 (30.0m)	----	----	----
			Sampling date / time	06-Jul-2023 11:00	06-Jul-2023 13:50	----	----	----
Compound	CAS Number	LOR	Unit	HK2326347-001	HK2326347-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.7	14.0	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	62	23	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5170565)								
HK2325898-015	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.6	20.8	1.3
HK2326347-001	AEDH24 (25.0m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.7	17.2	2.6
EG: Metals and Major Cations (QC Lot: 5158737)								
HK2325456-001	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	113	95	18.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5158737)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	101	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5158737)										
HK2325454-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	107	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2328593
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 19-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 28-Jul-2023
C-O-C number	: B102195			No. of samples received	: 5
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 5

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 19-Jul-2023 to 28-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2328593

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH25 (0.50m)	AEDH25 (1.50m)	AEDH25 (3.00m)	AEDH25 (6.00m)	AEDH25 (10.00m)
			Sampling date / time	19-Jul-2023 11:30	19-Jul-2023 13:00	19-Jul-2023 14:15	19-Jul-2023 15:05	19-Jul-2023 15:55
Compound	CAS Number	LOR	Unit	HK2328593-001	HK2328593-002	HK2328593-003	HK2328593-004	HK2328593-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.0	22.4	26.9	26.2	23.9
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	23	10	4	3	2

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5195156)								
HK2328212-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.6	12.6	0.0
HK2329389-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.4	12.7	2.9
EG: Metals and Major Cations (QC Lot: 5183959)								
HK2328211-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	10	10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5183959)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	100.0	----	87.2	110	----	----
EG: Metals and Major Cations (QC Lot: 5183961)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	102	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5183959)										
HK2328211-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	99.3	----	75.0	125	----	----
EG: Metals and Major Cations (QC Lot: 5183961)										
HK2328593-005	AEDH25 (10.00m)	EG020: Arsenic	7440-38-2	10 mg/kg	97.2	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 6
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2328741
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 20-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 31-Jul-2023
C-O-C number	: B102196			No. of samples received	: 3
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 3

Hong Kong Accreditation Service (HKAS) has accredited this laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066) under Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS Directory of Accredited Laboratories.

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 20-Jul-2023 to 28-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2328741

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Sample ID	AEDH25 (15.00m)	AEDH25 (15.00m Duplicate)	----	----	----
				Sampling date / time	20-Jul-2023 10:45	20-Jul-2023 10:50	----	----	----
					HK2328741-001	HK2328741-002	--------	--------	--------
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		19.8	20.6	----	----	----
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		7	7	----	----	----

Sub-Matrix: WATER				Sample ID	AEDH25 (Equipment Blank)	----	----	----	----
				Sampling date / time	20-Jul-2023 10:55	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2328741-003	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 5186858)								
HK2328653-002	Anonymous	**EG020: Arsenic**	7440-38-2	1	mg/kg	10	9	0.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 5186837)								
HK2328745-006	Anonymous	**EG020: Arsenic**	7440-38-2	1	µg/L	<1	<1	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5186858)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	99.5	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5186837)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	94.1	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report										
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number		MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5186858)										
HK2328653-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	99.4	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2329042
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 21-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 03-Aug-2023
C-O-C number	: B102197			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 21-Jul-2023 to 29-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2329042

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH25 (20.00m)	AEDH25 (25.00m)	----	----	----
			Sampling date / time	21-Jul-2023 13:00	21-Jul-2023 15:27	----	----	----
Compound	CAS Number	LOR	Unit	HK2329042-001	HK2329042-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.8	16.6	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	2	6	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5192603)								
HK2328156-005	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	39.0	38.0	2.6
EG: Metals and Major Cations (QC Lot: 5190340)								
HK2328834-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	9	9	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5190340)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	101	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5190340)										
HK2328834-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	100	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 6
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2326917
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 08-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 20-Jul-2023
C-O-C number	: B102161			No. of samples received	: 4
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 4

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 08-Jul-2023 to 18-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2326917

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH26 (0.50m)	AEDH26 (1.50m)	AEDH26 (1.50m) (Duplicate)	----	----
			Sampling date / time	08-Jul-2023 11:00	08-Jul-2023 11:30	08-Jul-2023 11:30	----	----
Compound	CAS Number	LOR	Unit	HK2326917-001	HK2326917-002	HK2326917-003	--------	--------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	23.9	25.6	24.9	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	17	10	8	----	----

Sub-Matrix: WATER			Sample ID	Equipment Blank	----	----	----	----
			Sampling date / time	08-Jul-2023 11:15	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2326917-004	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered								
EG020: Arsenic	7440-38-2	10	µg/L	<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5170565)								
HK2325898-015	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.6	20.8	1.3
HK2326347-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.7	17.2	2.6
EG: Metals and Major Cations (QC Lot: 5162217)								
HK2326505-002	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	10	11	0.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 5162176)								
HK2326717-001	Anonymous	EG020: Arsenic	7440-38-2	1	µg/L	7	6	17.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5162217)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	101	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5162176)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	98.6	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5162217)										
HK2326505-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	96.3	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5162176)										
HK2326704-001	Anonymous	**EG020: Arsenic**	7440-38-2	50 µg/L	100	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 5
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2327069
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 10-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 21-Jul-2023
C-O-C number	: B102193			No. of samples received	: 6
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 6

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 10-Jul-2023 to 19-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2327069

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH26 (3.00m)	AEDH26 (6.00m)	AEDH26 (10.00m)	AEDH26 (15.00m)	AEDH26 (20.00m)
			Sampling date / time	10-Jul-2023 09:45	10-Jul-2023 10:20	10-Jul-2023 11:00	10-Jul-2023 13:00	10-Jul-2023 15:00
Compound	CAS Number	LOR	Unit	HK2327069-001	HK2327069-002	HK2327069-003	HK2327069-004	HK2327069-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.4	28.4	26.2	18.7	13.2
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	3	38	4	40	15

Sub-Matrix: SOIL			Sample ID	AEDH26 (25.00m)	----	----	----	----
			Sampling date / time	10-Jul-2023 16:00	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2327069-006	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.0	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	73	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5173321)								
HK2325999-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	3.6	3.7	3.7
HK2326396-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.7	13.7	0.0
EG: Metals and Major Cations (QC Lot: 5164744)								
HK2326760-001	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	9	10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5164744)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5164744)										
HK2326758-001	Anonymous	EG020: Arsenic	7440-38-2	10 mg/kg	102	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2327238
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 11-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 20-Jul-2023
C-O-C number	: B102192			No. of samples received	: 1
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 11-Jul-2023 to 19-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2327238

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH26 (30.00m)	----	----	----	----
			Sampling date / time	11-Jul-2023 10:15	----	----	----	----
Compound	CAS Number	LOR	Unit	HK2327238-001	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.4	----	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	226	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5178893)								
HK2326154-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.9	16.5	2.3
HK2326478-004	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.4	19.5	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5173442)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	102	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5173442)										
HK2327238-001	AEDH26 (30.00m)	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 7
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2327799
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 13-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 26-Jul-2023
C-O-C number	: B102194			No. of samples received	: 7
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 7

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Lin Wai Yu , Iris	Assistant Manager - Inorganics	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 13-Jul-2023 to 24-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2327799

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Result(s) of soil/sediment sample(s) is/are reported on dry weight basis.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Water sample(s) were filtered prior to dissolved metal analysis.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Sample ID	AEDH29 (0.50m)	AEDH29 (1.50m)	AEDH29 (3.00m)	AEDH29 (6.00m)	AEDH29 (6.00m duplicate)
				Sampling date / time	13-Jul-2023 09:45	13-Jul-2023 11:15	13-Jul-2023 13:00	13-Jul-2023 13:40	13-Jul-2023 13:45
					HK2327799-001	HK2327799-002	HK2327799-003	HK2327799-004	HK2327799-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		19.1	12.8	19.1	27.3	28.5
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		81	32	15	232	249

Sub-Matrix: SOIL				Sample ID	AEDH29 (10.00m)	----	----	----	----
				Sampling date / time	13-Jul-2023 14:15	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2327799-006	-------	-------	-------	-------
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		26.2	----	----	----	----
EG: Metals and Major Cations									
EG020: Arsenic	7440-38-2	1	mg/kg		80	----	----	----	----

Sub-Matrix: WATER				Sample ID	AEDH29 (Equipment Blank)	----	----	----	----
				Sampling date / time	13-Jul-2023 13:50	----	----	----	----
Compound	CAS Number	LOR	Unit		HK2327799-007	-------	-------	-------	-------
EG: Metals and Major Cations - Filtered									
EG020: Arsenic	7440-38-2	10	µg/L		<10	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5181406)								
HK2327108-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.8	11.6	1.9
HK2327420-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	27.3	26.9	1.4
EA/ED: Physical and Aggregate Properties (QC Lot: 5181407)								
HK2327799-004	AEDH29 (6.00m)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	27.3	27.4	0.4
HK2328051-008	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	24.6	24.8	1.0
EG: Metals and Major Cations (QC Lot: 5173448)								
HK2327294-001	Anonymous	EG020: Arsenic	7440-38-2	1	mg/kg	8	8	0.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 5173465)								
HK2327845-007	Anonymous	EG020: Arsenic	7440-38-2	1	µg/L	<10	<10	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5173448)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	103	----	87.2	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5173465)											
EG020: Arsenic	7440-38-2	1	µg/L	<1	50 µg/L	97.0	----	88.1	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5173448)										
HK2327294-001	Anonymous	**EG020: Arsenic**	7440-38-2	10 mg/kg	101	----	75.0	125	----	----

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 5173465)										
HK2327799-007	AEDH29 (Equipment Blank)	**EG020: Arsenic**	7440-38-2	50 µg/L	95.4	----	75.0	125	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: TYSAN FOUNDATION LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: CESAR, KA HO WONG	Contact	: Richard Fung	Work Order	: HK2328092
Address	: ROOM 1219, 12/F LEADER INDUSTRIAL CENTRE, NOS. 57-59 AU PUI WAN STREET, FO TAN, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: CesarWong.si@tysan.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ----	Telephone	: +852 2610 1044		
Facsimile	: +852 2511 9826	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. ND/2021/04 ADVANCE GROUND INVESTIGATION WORKS FOR SAN TIN / LOK MA CHAU DEVELOPMENT NODE			Date Samples Received	: 14-Jul-2023
Order number	: J2202SF06	Quote number	: HKE/1455/2022	Issue Date	: 19-Jul-2023
C-O-C number	: B102191			No. of samples received	: 2
Site	: SAN TIN / LOK MA CHAU			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	*Position*	*Authorised results for*
Chan Siu Ming , Vico	Assistant Laboratory Manager	Inorganics
Wong Wing , Kenneth	Assistant Manager - Metals	Metals_ENV

General Comments

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Testing period is from 14-Jul-2023 to 19-Jul-2023.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2328092

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified. The result(s) is/are related only to the item(s) tested.

Sample(s) as received, digested by in-house method E-ASTM D3974-09 prior to determination of metals. The in-house method is developed based on ASTM D3974-09 method.

Analytical Results

Sub-Matrix: SOIL			Sample ID	AEDH 29 (15.00m)	AEDH 29 (20.00m)	----	----	----
			Sampling date / time	14-Jul-2023 10:00	14-Jul-2023 11:15	----	----	----
Compound	CAS Number	LOR	Unit	HK2328092-001	HK2328092-002	-------	-------	-------
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.5	15.5	----	----	----
EG: Metals and Major Cations								
EG020: Arsenic	7440-38-2	1	mg/kg	221	207	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5178894)								
HK2328092-001	AEDH 29 (15.00m)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.5	16.4	0.0
EG: Metals and Major Cations (QC Lot: 5181647)								
HK2328092-002	AEDH 29 (20.00m)	**EG020: Arsenic**	7440-38-2	1	mg/kg	207	208	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5181647)											
EG020: Arsenic	7440-38-2	1	mg/kg	<1	10 mg/kg	101	----	87.2	110	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 5181647)										
HK2328092-001	AEDH 29 (15.00m)	**EG020: Arsenic**	7440-38-2	10 mg/kg	# Not Determined	----	75.0	125	----	----

Appendix E

Selected Aerial Photographs

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE

EDH01

EDH02

EDH03

EDH04

EDH05

EDH06

AEDH01

AEDH03

AEDH10

AEDH11

AEDH12

AEDH13

AEDH14

AEDH23

AEDH24

AEDH25

N

Plot File by: ChrwR 8/10/2023
PATH: C:\Data\Project\CE20 San Tin\dgn\HIA Appendix Aerial Photo.dgn

AECOM

PROJECT
項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

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STATUS
階段

SCALE
比例

A3 1 : 2500

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

60670882

AGREEMENT NO.
協議編號

CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1963

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-1.1

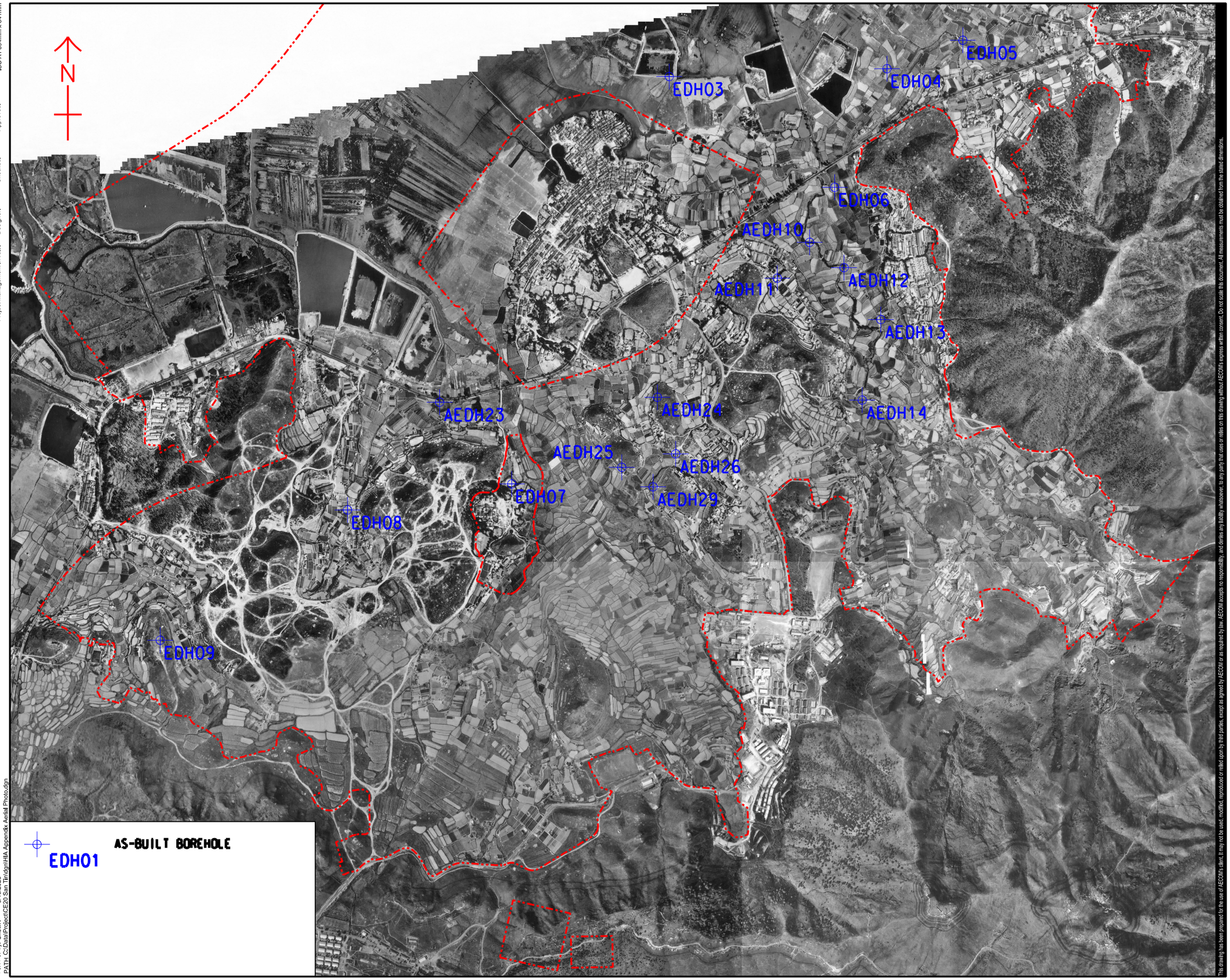
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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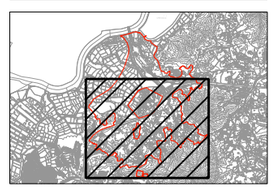
STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



PROJECT NO. 項目編號
60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1963

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 1

ISO A1 594mm x 841mm

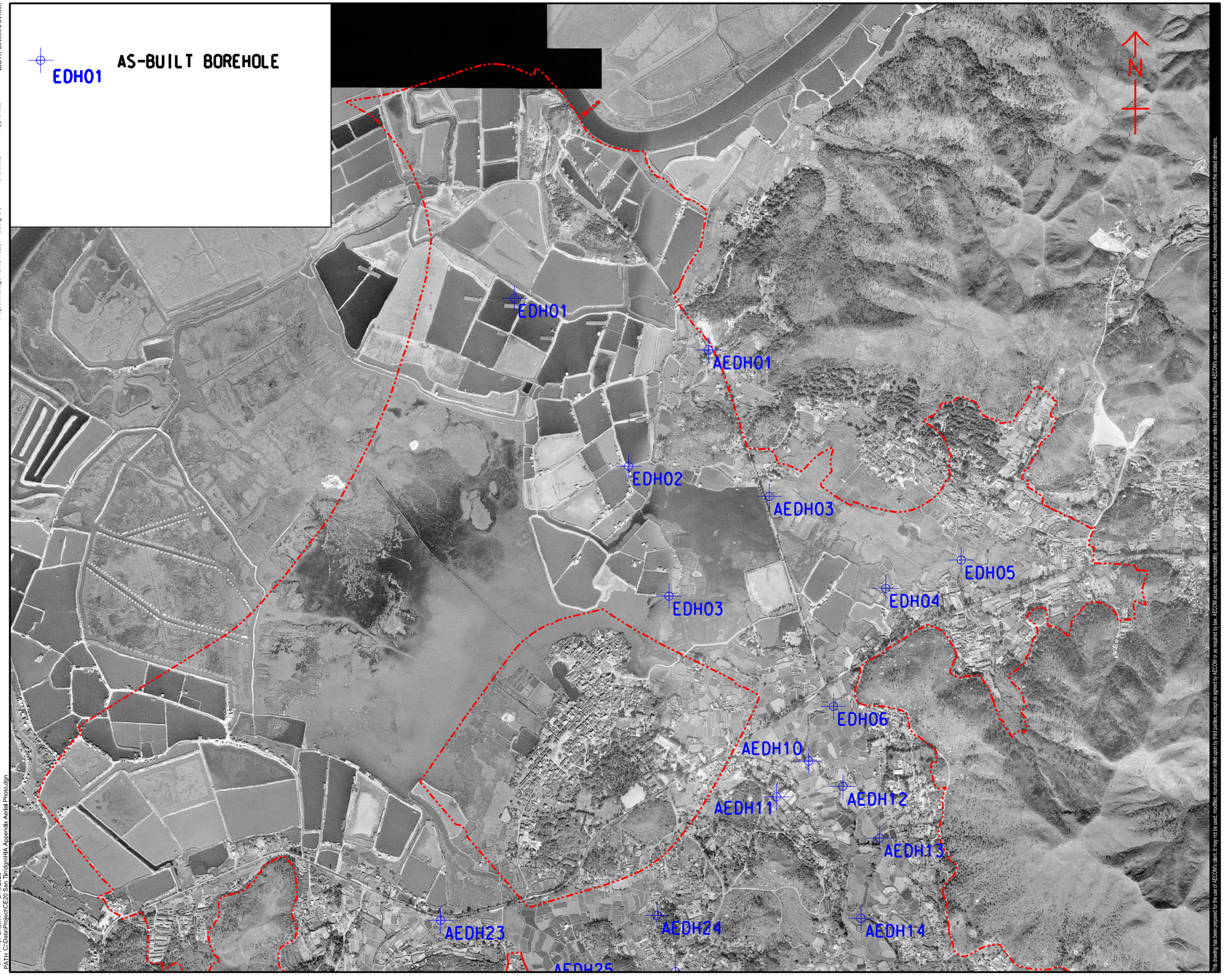
Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE



Plot File by: ChowR 8/10/2023
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AECOM

PROJECT
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FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

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STATUS
階段

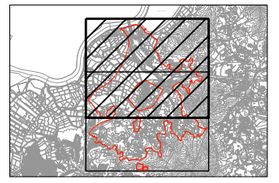
SCALE
比例

A3 1 : 2500

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖



PROJECT NO.
項目編號

60670882

AGREEMENT NO.
協議編號

CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1973

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-2.1

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

N

EDH03

EDH04

EDH05

EDH06

AEDH10

AEDH11

AEDH12

AEDH13

AEDH14

AEDH23

AEDH24

AEDH25

AEDH26

AEDH29

EDH07

EDH08

EDH09

AS-BUILT BOREHOLE

EDH01

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PATH: C:\Data\Project\CE20 San Tin\dgn\HIA Appendix Aerial Photo.dgn

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PROJECT
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FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

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I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS
階段

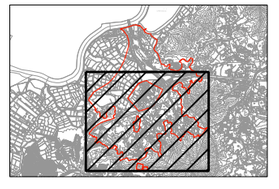
SCALE
比例

A3 1 : 10000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖



PROJECT NO.
項目編號

60670882

AGREEMENT NO.
協議編號

CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1973

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 2

ISO A1 594mm x 841mm

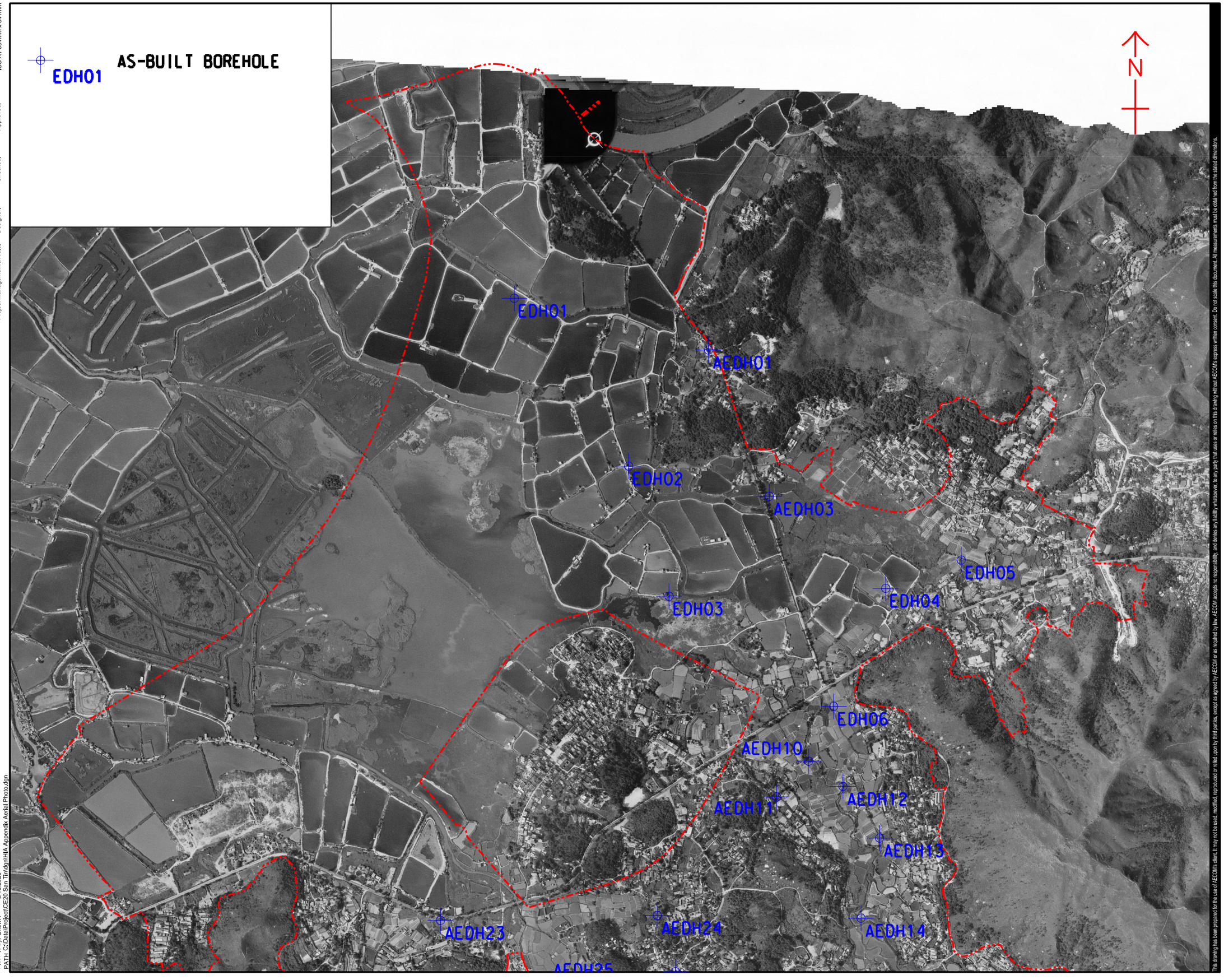
Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE



Plot File by: ChowR 8/10/2023
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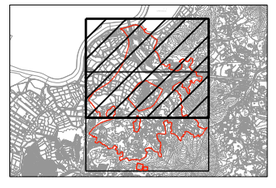
STATUS
現況

SCALE 比例
A3 1 : 2500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



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60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1982

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-3.1

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

EDH03

EDH04

EDH05

EDH06

AEDH10

AEDH11

AEDH12

AEDH13

AEDH14

AEDH23

AEDH24

AEDH25

AEDH26

AEDH29

EDH07

EDH08

EDH09

EDH01 AS-BUILT BOREHOLE

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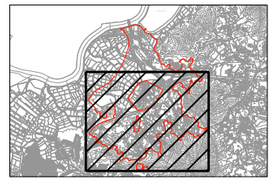
STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



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60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1982

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 3

ISO A1 594mm x 841mm

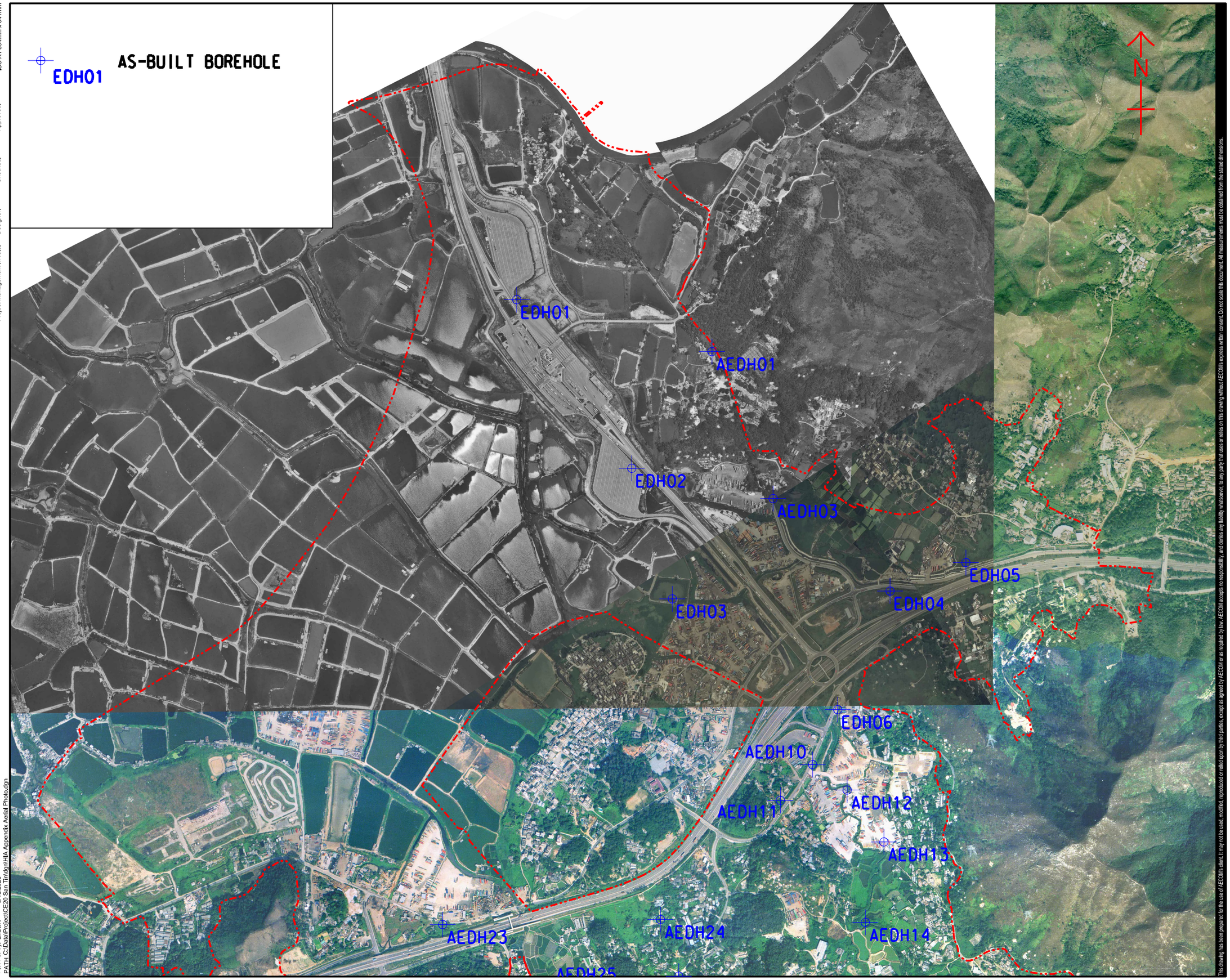
Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE



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STATUS
階段

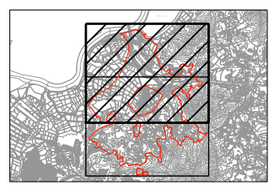
SCALE
比例

A3 1 : 2500

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖



PROJECT NO.
項目編號

60670882

AGREEMENT NO.
協議編號

CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1993

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-4.1

Plot File by: ChowR 8/10/2023
PATH: C:\Data\Project\CE20 San Tin\dgn\HIA Appendix Aerial Photo.dgn

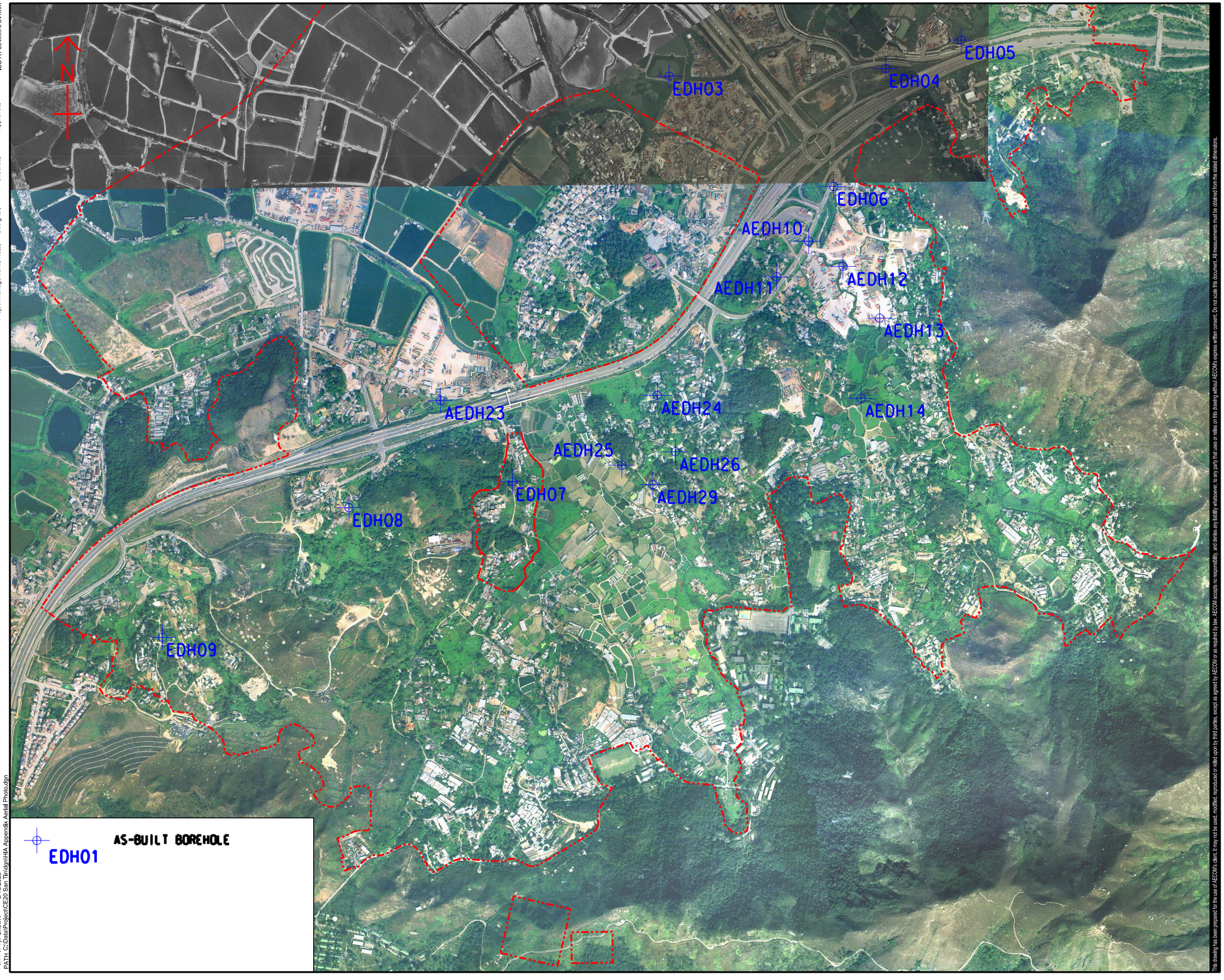
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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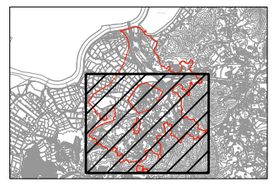
STATUS
現況

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES□

KEY PLAN
索引圖



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AGREEMENT NO. 協議編號
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SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 1993

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 4

Plot File by: ChowR 8/10/2023
PATH: C:\Data\Project\CE20 San Tin\dgn\HIA Appendix Aerial Photo.dgn

ISO A1 594mm x 841mm

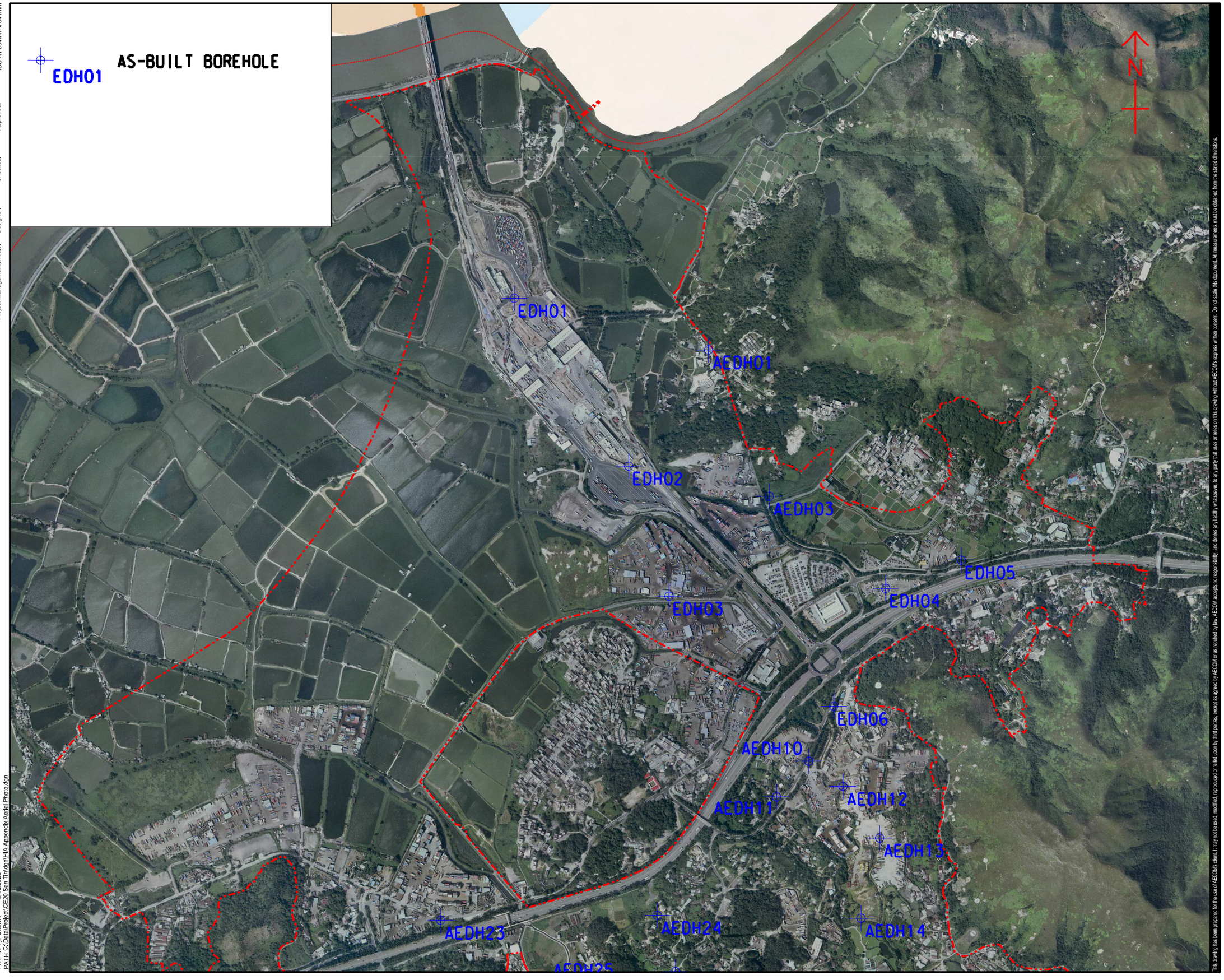
Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE



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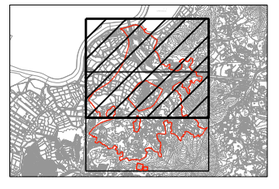
STATUS
階段

SCALE 比例
A3 1 : 2500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



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60670882

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SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2002

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-5.1

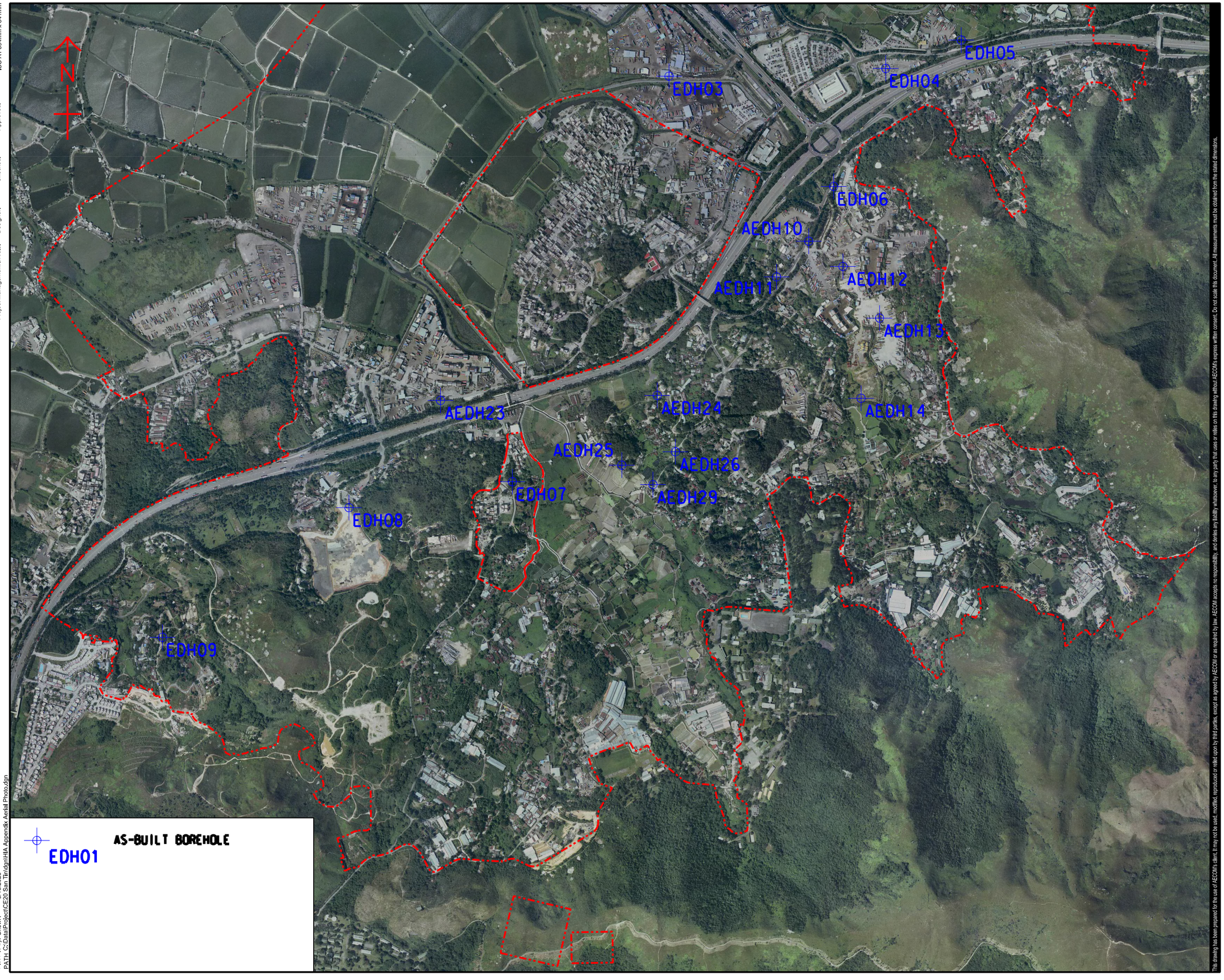
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



Plot File by: ChowR 8/10/2023
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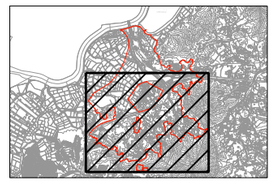
STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



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SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2002

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 5

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE

EDH01

EDH02

EDH03

EDH04

EDH05

EDH06

AEDH01

AEDH03

AEDH10

AEDH11

AEDH12

AEDH13

AEDH14

AEDH23

AEDH24

N

Plot File by: ChowR 8/10/2023
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STATUS
階段

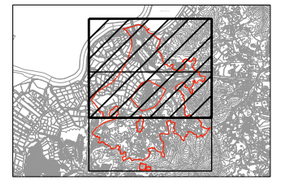
SCALE
比例

A3 1 : 2500

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖



PROJECT NO.
項目編號

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AGREEMENT NO.
協議編號

CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2006

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-6.1

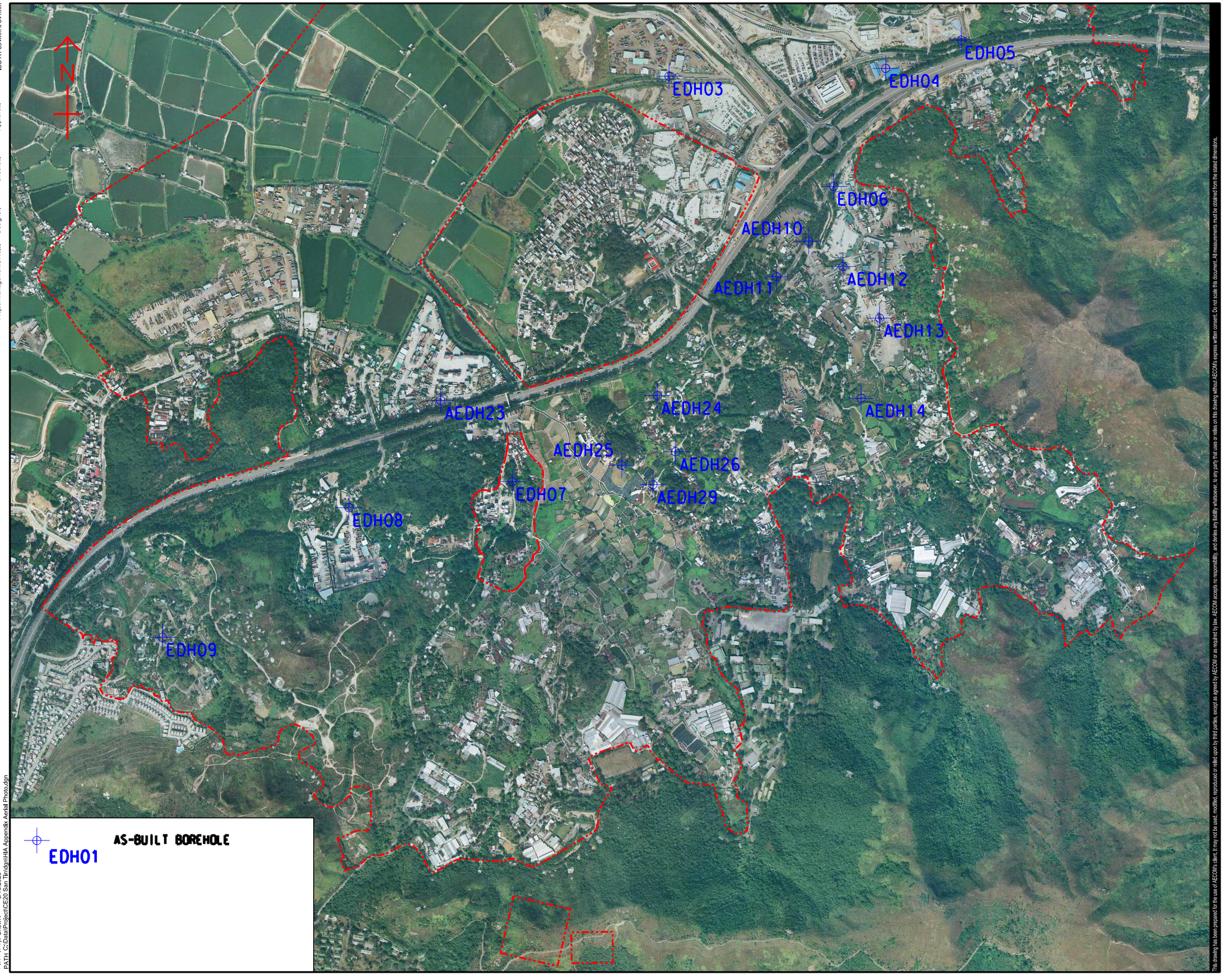
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



AS-BUILT BOREHOLE

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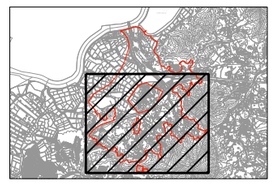
STATUS
現況

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES□

KEY PLAN
索引圖



PROJECT NO. 項目編號
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CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2006

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 6

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE

EDH01

AEDH01

EDH02

AEDH03

EDH05

EDH04

EDH03

EDH06

AEDH10

AEDH11

AEDH12

AEDH13

AEDH23

AEDH24

AEDH14

AEDH25

N

Plot File by: ChowR 8/10/2023
PATH: C:\Data\Project\CE20 San Tin\dgn\HIA Appendix Aerial Photo.dgn

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STATUS
階段

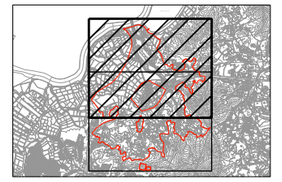
SCALE
比例

A3 1 : 2500

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖



PROJECT NO.
項目編號

60670882

AGREEMENT NO.
協議編號

CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2014

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-7.1

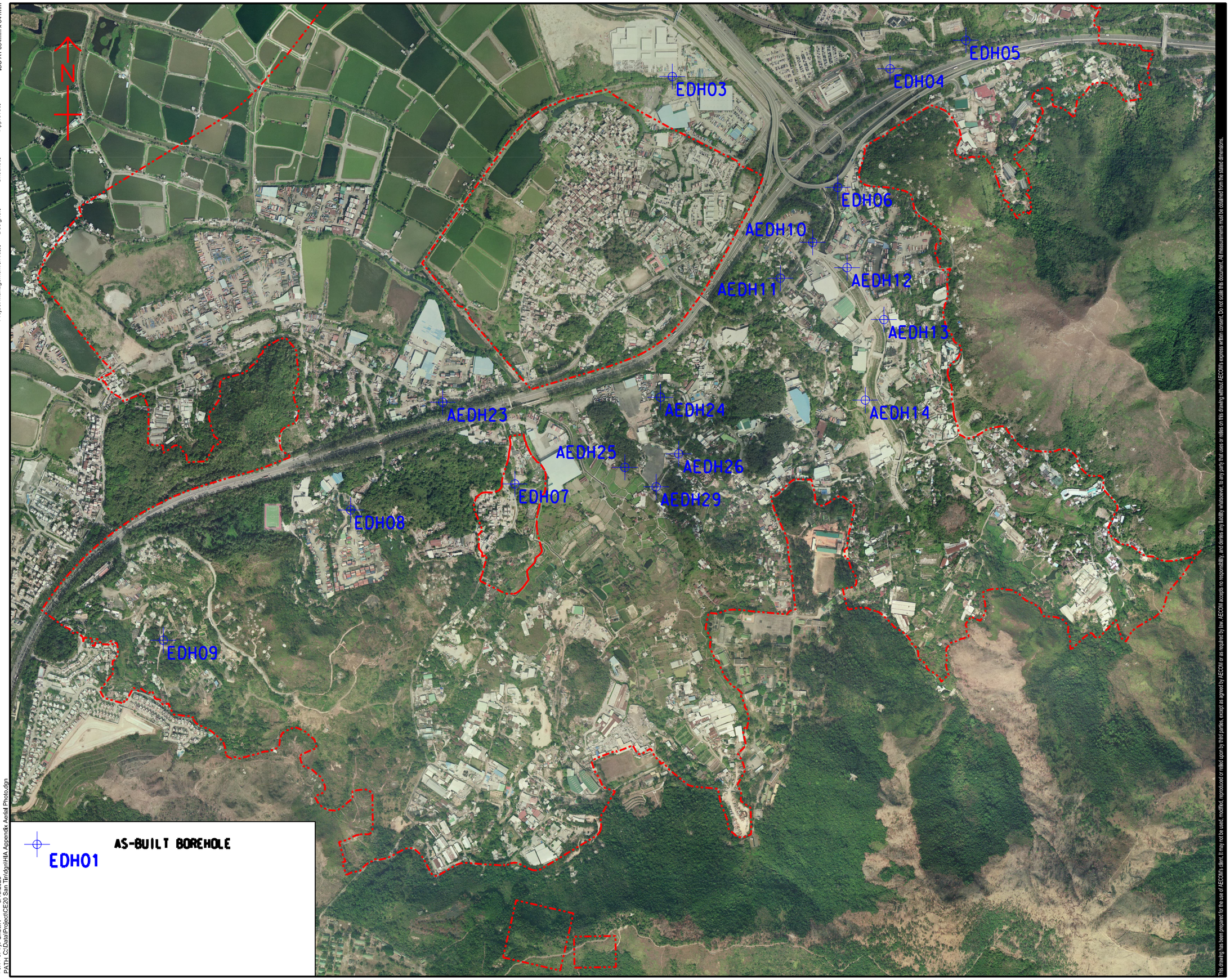
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



Plot File by: ChowR 8/10/2023
PATH: C:\Data\Project\CE20 San Tin\dgn\HIA Appendix Aerial Photo.dgn

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FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

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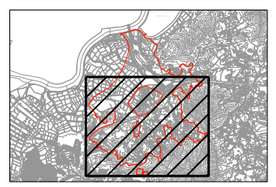
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



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60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2014

SHEET NUMBER
圖紙編號

APPENDIX FIGURE 7

ISO A1 594mm x 841mm

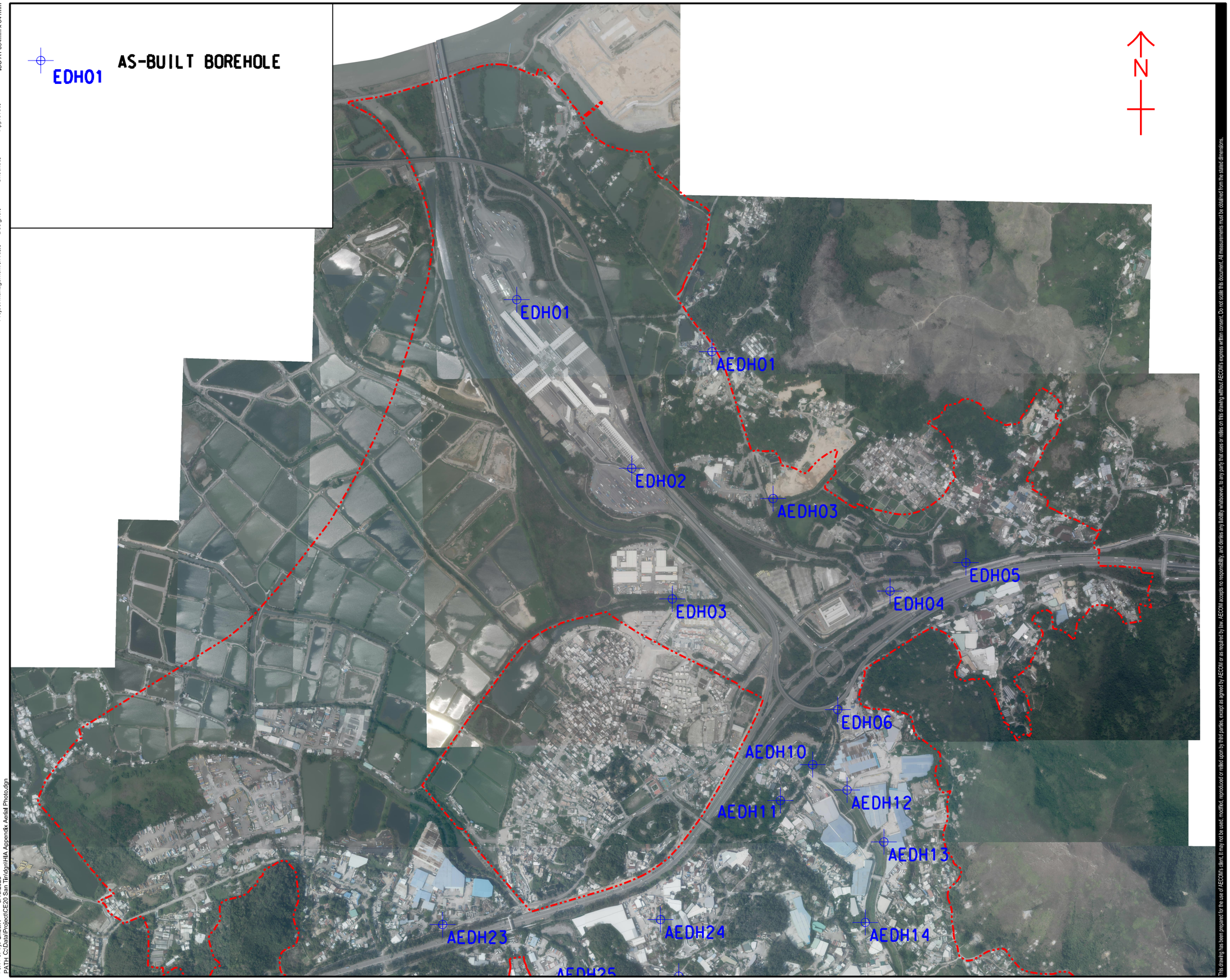
Approved:

Checked:

Designer:

Project Management Initials:

EDH01 AS-BUILT BOREHOLE



Plot File by: ChowR 8/10/2023
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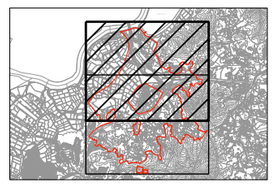
STATUS
階段

SCALE 比例
A3 1 : 2500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



PROJECT NO. 項目編號
60670882

AGREEMENT NO. 協議編號
CE 20/2021

SHEET TITLE
圖紙名稱

AERIAL PHOTOGRAPH
YEAR 2020

SHEET 1 OF 2

SHEET NUMBER
圖紙編號

D26/APP-8.1

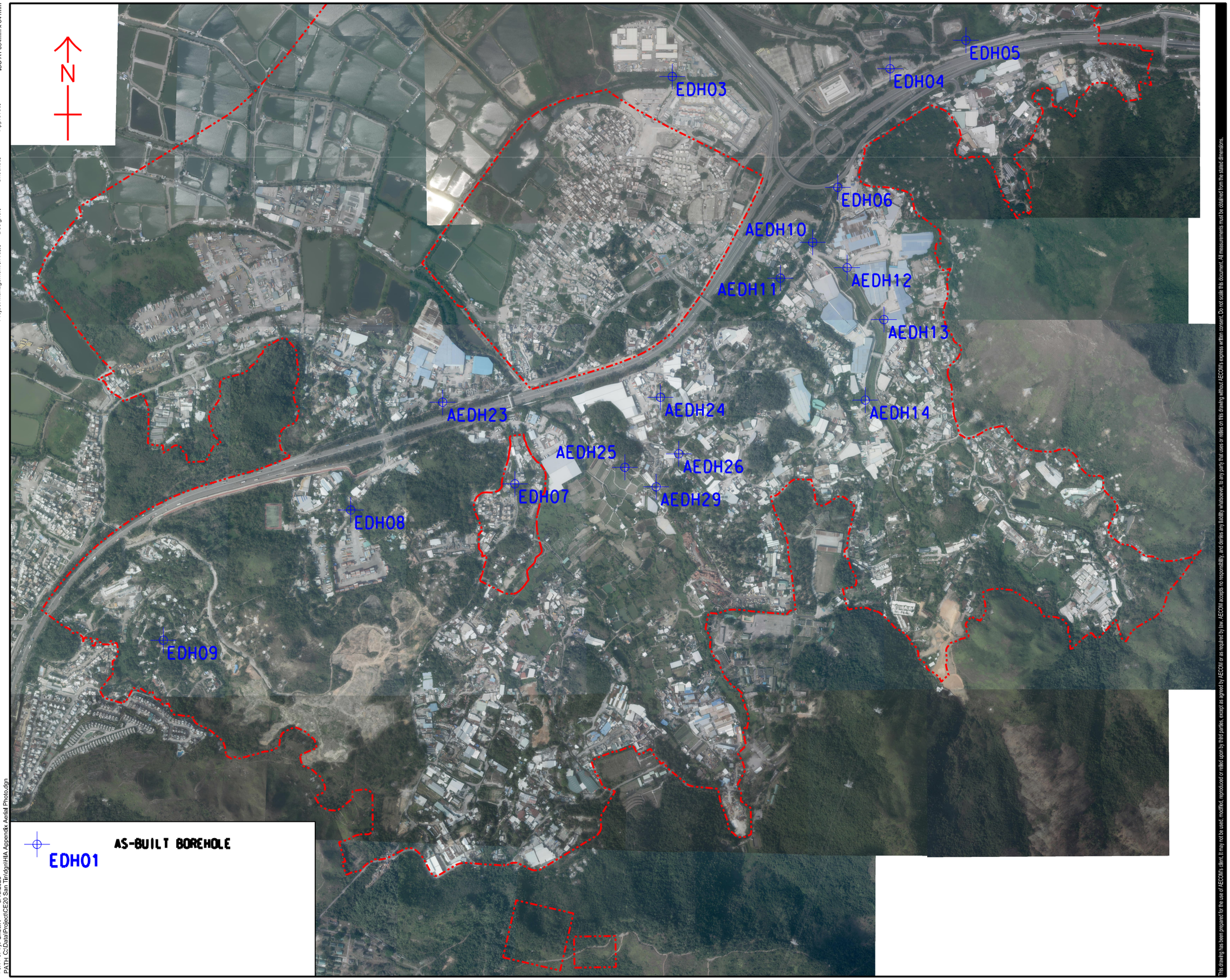
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



Plot File by: ChowR 8/10/2023
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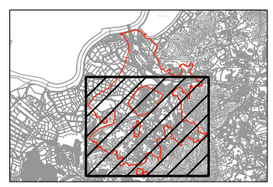
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核

STATUS
階段

SCALE 比例
A3 1 : 10000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖



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APPENDIX FIGURE 8

Appendix F

Calculation of Soil Screening Level for Ingestion Pathway

$$\text{Arsenic soil screening value} = \frac{\text{MRL} * \text{body weight} * 1{,}000{,}000}{\text{Amount of soil ingested per day} * \%\ \text{absorption}}$$

Arsenic soil screening value for short-term (acute) MRL of children

MRLs for short-term exposure	=	0.005mg/kg/day [1]
Body weight	=	10.5 kg [2]
Amount of soil ingested per day	=	200 mg/day [3]
% absorption	=	42% [4]
Therefore,		
Arsenic soil screening value	=	625 mg/kg

Arsenic soil screening value for long-term MRL of adult

MRLs for long-term exposure	=	0.0003mg/kg/day [1]
Body weight	=	40 kg [5]
Amount of soil ingested per day	=	50 mg/day [6]
% absorption	=	42% [4]
Therefore,		
Arsenic soil screening value	=	571 mg/kg

[1] Oral Minimal Risk Levels (MRLs) recommended by the US Agency for Toxic Substances and Disease Registry (ATSDR)

[2] Body weight of female children aged 3 years at 3 percentile from Leung et al. Growth standard from Southern Chinese. Hong Kong Growth Survey 1993,

[3] Exposure Factor for General Population Upper Percentile for 3 to <6 years, Exposure Factors Handbook published by the United States Environmental Protection Agency (USEPA)

[4] relative bioavailability as adopted in EIA Report - North East New Territories New Development Areas (EIA Register No. AEIAR-175/2013)

[5] Body weight of female adults (aged 18 years) at 3 percentile from Leung et al. Growth standard from Southern Chinese. Hong Kong Growth Survey 1993,

[6] Exposure Factor for General Population Central Tendency for adult, Exposure Factors Handbook published by the United States Environmental Protection Agency (USEPA)